The Mining Journal
AND ATMOSPHERIC RAILWAY GAZETTE,

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 558.—Vol. XVI.] LONDON: SATURDAY, MAY 2, 1846. [Price 6d.

MINING MATERIALS FOR SALE.—TO BE SOLD, BY PUBLIC AUCTION, on Monday, the 4th day of May next, at Eleven o'clock in the forenoon, at WHEAL PROVIDENCE MINE, in the parish of Gwinear, by Mr. G. SEALY, auctioneer, the following MINE MATERIALS, on the CARLOOSE MINE, consisting of—

An excellent 60-inch cylinder PUMPING-ENGINE, 8-feet stroke in shaft, and 9¼-feet in cylinder, with two boilers, 24 tons steam pipes, &c., complete.
A very good CRUSHING MACHINE, complete, nearly new.
A 25-ft. WATER-WHEEL, 2 ft. on breast, with 6-head stamps, complete, & nearly new.
The CAGE of a STEAM-WHIM, with perpendicular iron axle, complete.
A very good capstan, shears, and balance-bob.

33 fathoms 12-inch pumps	1 13-inch windbores
16 „ 11-inch ditto	1 11-inch ditto
14 „ 10-inch ditto	3 9-inch ditto
17 „ 9-inch ditto	2 8-inch ditto
2 14-inch H-pieces	1 6-inch ditto
2 14-inch top door ditto	3 9-inch working barrel
2 14-inch poles, stuffing-boxes and glands, and cases to suit	1 11¾-inch ditto
1 9-inch ditto ditto	2 9-inch clack seat pieces
3 14-inch windbores	1 11-inch ditto
	75 fathoms of 12-inch rods, nearly new.

Faggoted strapping-plates, swords, and caps; flanch, rod, and other bolts and bars, staples and glands; cisterns, 2, 3, and 4-feet whim sheves; 320 fms. 9-16 and ¾-inch whim chain; 13-inch capstan-rope, 90 fms. long; an axle and sockets of water-wheel; old cast and wrought-iron; sockets of an angle-bob, &c.
A WATER-WHEEL, 30-feet diameter, 2-feet on breast, with iron axle and centre pieces; cast-iron axle and cam rings, with 8-head stamps, brasses, &c., the whole complete, and new, with 40 fms. of launders.—Dated Marazion, April 10, 1846.

TO COAL MINERS AND OTHERS.—EXTENSIVE SALE OF STEAM-ENGINES, BOILERS, LIFTING AND WINDING MACHINERY, CAPSTANS, and other articles connected with the business, in consequence of the Old Rushy Park Colliery, St. Helens, being entirely worked out (the whole of the STOCK, three-fifths of the same being property in trust for deceased partners, is obliged to be disposed of), and WILL BE SOLD, BY PUBLIC AUCTION, by J. DREW, on Wednesday, the 6th of May, and the following day, at the OLD RUSHY PARK COLLIERY, near ST. HELENS. The PROPERTY consists of—

ONE atmospheric hand-geer LIFTING STEAM-ENGINE, equal to 56-horses power, iron beam, with arch heads, one round boiler, equal to 50-horses power; one ditto, 40-horses ditto, pit head framing, capstan, and 200 yards of 11-inch rope.
ONE condensing hand-geer LIFTING and WINDING STEAM-ENGINE, equal to 32-horses power, iron beam, two round boilers, each equal to 40-horses power, connecting-rod, fly-wheel, winding barrel and flat-rope, pit head framing, and capstan.
ONE condensing hand-geer LIFTING STEAM-ENGINE, equal to 32-horses power, iron beam, one cylindrical steam-boiler, equal to 30-horses power; one ditto, new, 15-horses ditto, iron pit head framing, capstan, and 160-yards of 8-inch rope.
ONE condensing D valve LIFTING and WINDING STEAM-ENGINE, equal to 17-horses power, iron beam, one cylindrical steam-boiler, equal to 16-horses power; one ditto, 15-horses ditto.
ONE high-pressure FRAME STEAM-ENGINE, equal to 16-horses power, one cylindrical high-pressure steam-boiler, equal to 16-horses power (this engine and boiler was used under ground, for drawing the coals up an inclined plane).
ONE atmospheric lifting hand-geer STEAM-ENGINE, equal to 7-horses power, iron beam, and round boiler.
One old waggon boiler, equal to 15-horses power; one round ditto, 30-horses ditto; three underground tram rails, winding buckets, with other articles used for the business.
A number of useful HORSES, CARTS, PLOUGHS, HARROWS, LAND ROLLER, two of Earl Bucie's LAND CULTIVATORS, with other utensils.
About 10 tons of well-got hay, two ricks of wheat on the straw, with various other articles.

Sale to commence each day at Eleven o'clock.

Descriptive catalogues will be ready for delivery one week before the sale, and may be had at the office of the Old Rushy Park Colliery, and of the auctioneer, 7, New Cannon-street, Manchester.

THE SALE OF THE FREEHOLD LAND AND COTTAGES IS POSTPONED until further notice.

Notice.—The Blackbrook Rushy Park Colliery has been for five years in full operation. All orders for this superior coal to be addressed to Messrs. Bromilow, Brother, and Sothern, St. Helens; or Messrs. Sothern, Bromilow, and Brother, at their offices, 5, Castle-street, and 2, Rumford-street, Liverpool.

PARK IRON-WORKS, SHEFFIELD.—Mr. G. O. BROWN has the honour to announce, that he has received instructions from the proprietors of the above celebrated works TO OFFER FOR SALE, on the 11th of May next, and following days, all the valuable MACHINERY, STEAM-ENGINES, PLANING MACHINES, LATHES, CRANES, WEIGHING MACHINES, TOOLS, ANVILS, VICES, BELLOWS, and other MISCELLANEOUS STOCK, consisting of—

SMITHS' TOOLS, of every description, in iron and steel.
FITTERS' and ERECTORS' TOOLS, in great variety.
BORING and TURNING TOOLS, of superior quality.
PATENT SCREW TAPS, DIES, WRENCHES, &c. (Whitworth's).
MOULDERS' TOOLS, for every purpose.
FETLERS', or DRESSERS', TOOLS, for all kinds of work.
CAST-IRON FLOOR PLATES, of various sizes, in suitable lots.
ASHLER STONE, in blocks of large dimensions.
CARTS, DRUDGES, HARNESS, and STABLE FITTINGS.
PATTERNS in wood, iron, and other metals, in almost endless variety, for every description of FOUNDRY, ENGINEERING, RAILWAY, and ARCHITECTURAL WORK; also for GAS and WATER-WORKS, consisting of iron and wood models for casting pipes vertically, of every size, including bends, branches, quadrants, plug, taper, and outlet, with box-parts, core-bars, loam plates, and all things appertaining thereto; as well for retorts, hydraulic mains, condensers, purifiers, syphons, &c.
WHEELS for RAILWAY WAGGONS, chairs, water cranes, tanks, turn-tables, roofs, columns, bridges, palisading, water and eave spouting, fountain heads, shoes, &c.
SPUR, BEVIL, METRE, FLY, and other WHEEL PATTERNS.
PATTERNS for MILL MACHINERY, lathes, steam-engines, sluice and safety valves, iron chills, bored for casting hard rollers for iron, &c.
CORE RANGES, STOVE CARRIAGES, and OTHER FOUNDRY WORK.

THE PLANT, OR FIXED STOCK,
Comprises a strong and well made
DOUBLE-POWER BOULTON AND WATT STEAM-ENGINE,
With fly-wheel, blowing cylinder, and cast-iron regulator.

The steam cylinder, 28½-inch diameter 6-feet stroke, blowing cylinder, 56-inch diameter, with three wrought-iron boilers, waggon shape, with a cylindrical tube in each, fire doors, and frames, bearers, grate bars, dampers, and frames, steam and feed pipes; blast pipes, 18-inch diameter, leading from the regulator to two furnaces; feeding apparatus to two furnaces, consisting of shafts, coupling boxes, carriages, and bevil wheels from the engine to the machinery and the shafts, carriages, wheels, pinions, inclines, chains, and buckets; cast-iron plates, bearers, and wrought-iron work to five cupolas, and two air or reverberatory furnaces; stove fittings and pipes; a very excellent 10-horse boulton and watt engine, with diagonal frame, waggon boiler, and boiler fittings; a powerful blowing apparatus for working cupolas and smiths' fires; a strong and compact iron breast water-wheel, with shaft, carriages, and sluice, or pentrough, 14-feet diameter, 4-feet wide, connecting machinery, to the blowing machines, and also to a charcoal coal dust and loam mill pipes, valves, water boshes, tuyeres, and runner moulds, for a refinery wharf foundry, and other cranes, double and single power, from 1 to 10 tons, twenty in all; several small WEIGHING MACHINES, for tram roads, and warehouse purposes; also one 15-ton, one 5-ton, and one 2-ton road machine, of superior and correct workmanship; two excellent pipe-proving machines, with feed-head, force pumps, and levers.

A magnificent PLANING MACHINE, 18 feet by 3 feet 6 inches clear.
A valuable SLIDE LATHE, 14 feet bed, clear, with change wheels.
A strong SLIDE LATHE, for roll turning.
A superior LATHE, capable of boring cylinders, 8 feet diameter, 25 ft. 9 in. bed.
A new BORING and TURNING LATHE, with planed bed, 34 ft. 9 in. long, arranged to work with either bands or gear.
A 10-inch double-geared HAND LATHE.
A double-geared LATHE, 14½-inch centres, slide and hand rests, &c.
A 7-inch HAND TURNING LATHE.
A 7-inch SLIDE LATHE, with face and chuck plates.
A 7-inch WOOD TURNING LATHE.
A VERTICAL DRILLING MACHINE.
A NUTTING MACHINE.
A small PIPE BORING and TURNING MACHINE.
Vertical and horizontal SHAFTS, carriages, hanging brackets, drum pullies, bevil and mitre wheels, leather bands, &c.
GAS FITTINGS throughout the works.
OFFICE FIXTURES, DESKS, IRON SAFES.
A superior mahogany-top DRAWING TABLE.
A superior slate TABLE, BOARDS, &c.

Printed catalogues, descriptive of the lots, with order of sale, will be ready one week previous, and may be had, at one shilling each, at the *Mercury* office, Sheffield; the auctioneer, Rotherham; the *Guardian* office, Manchester; the *Mercury* office Leeds; the *Midland Counties Herald* office, Birmingham; the *Liverpool Mercury* office; the Guildhall Coffee-house, City, London; *Eastern Counties Herald* office, Hull.

MINES AT TITFORD, NEAR OLDBURY.—TO BE SOLD, BY AUCTION, by E. and C. ROBINS and CO., at the Union Inn, in Union-street, Birmingham, on Thursday, the 21st day of May next, at Four o'clock in the afternoon, subject to conditions then to be produced, all the valuable MINE of TENYARD, or THICK, COAL; and all other the MINES of COAL and IRONSTONE, under the SMETHWICK CHAPEL ESTATE, at TITFORD, in the parish of Hales Owen, in the county of Salop, about four miles from Birmingham—the surface of which is now in the occupation of Mr. Whitehouse, and contains about 18 acres. The estate adjoins the colliery of Messrs. Hartland and Co., and is close to Messrs. Bennetts' and Messrs. Whitehouse and Finch's collieries—all now at work.

The mines have been proved by the workings of the adjoining collieries.
For further information apply to Messrs. Barker and Griffiths, solicitors, Birmingham; Messrs. Gasser and Son, mine agents, West Bromwich; or the auctioneers, New-street, Birmingham.

MINE MATERIALS.—I. T. TREGELLAS, Quay, TRURO presentshis respects to MINERS, and begs to OFFER them the following GOODS, of good quality, and at the lowest market prices:—

IRONS, including best Shropshire Bars, extra-refined Chain Iron, Boiler-plates, Kibble-plates, Hoops, and Sheets
Steel of every description
Coals
Gunpowder and Powder Cans
Hemp and Wire Cordage
Best Scrap Chain, warranted
Kibbles and Water Barrels
Nails of all kinds
Sheet Lead, White Lead, and Red Lead
Shovels
Picks and Pick Moulds
Mallets and Mallet Iron
Saws and Hatchets
Shovel Hilts from 1s. per doz. to 5s. per doz.
Pick Hilts
Smiths' Bellows
Oils—of every kind
Grease, at the makers' prices
Fire Brick and Building Brick
Pitch, Tar, Rosin, and Roman Cement
Anvils, Vices, and Files
Leather
Grindstones
Engine Shag and Sump Stripe
Ore Ducks, Poldavy, and Sacking
Patent Felt, for covering cylinders, &c.
Patent Roofing Felt, 1d. per square foot
Lifting Jacks
Patent Fuse, Shooting Needles, and Clay Irons, and every other description of materials for general mine consumpt.

Dated Truro, April 2.

MINERALS IN AYRSHIRE.—TO BE LET, ON LEASE, for such number of years as may be agreed on, the MINERALS in the Marquis of Ailsa's lands of MARTNAHAM, BOGSIDE, and OTHERS, in the parishes of Dalrymple and Cayeton, extending to upwards of 3500 Scotch acres. The lands are known to contain COAL and CLAY-BAND IRONSTONE to a considerable extent, and of superior quality; and, from a recent search, it is all but certain that BLACK-BAND IRONSTONE is also abundant. There is a limework in the immediate neighbourhood.

The lands are situated within five miles of the county and sea-port town of Ayr, to which there will be railway communication—by at least one line—in about 18 months. Altogether, it is seldom that a more eligible place for establishing iron-works, on an extensive scale, is in the market. If desired, the COAL, in a limited portion of the lands will BE LET BY ITSELF.

For further information, application may be made to Mr. Ferguson, mining engineer, Machan House, Larkhall, near Glasgow; or Thomas Dykes, Maybole Castle, Ayrshire, both of whom are in possession of journals of the coal bores, and of a report of a mineral survey, recently made, in reference to ironstone.—Maybole, April 22, 1846.

TO BE SOLD, BY PRIVATE CONTRACT, all that powerful FORGE and MILL, situate at LEA BROOK, in the parish of Tipton, now being worked by the Galvanised Iron Company, and where they are carrying on their valuable patent. The purchase-money will be received by easy instalments; and for further particulars apply to Mr. George Payton, Great Bridge, Tipton.

TO MINERS AND ENGINEERS.—TO BE SOLD, a PAIR of 8-horse HIGH-PRESSURE MARINE ENGINES—new. Also, second-hand, an excellent 40-horse HIGH-PRESSURE ENGINE, and a 6-horse CORNISH ENGINE. The two first with new boilers—complete; the small one with a good boiler: they will be sold very reasonable. They are now near Chudleigh, Devon, and the new boilers are in London.—Address H. Weston, Esq., Chudleigh Knighton; or J. Reeve, engineer, Belle Vue, Bovey Tracey, Devon.

TO IRONMASTERS, FOUNDERS, AND OTHERS.— CHARCOAL PIG-IRON.—TO BE SOLD, a QUANTITY of the celebrated INDIAN CHARCOAL PIG-IRON, now lying at St. Katherine's Docks, suitable for the manufacture of steel, tin plates, malleable castings, bars, cannon, and castings required to be tough and highly polished, and for all ordinary purposes of iron, whether cast or wrought. Apply to Mr. H. Herbert Downman, 2, Bucklersbury, Cheapside.

SOUTH STAFFORDSHIRE.

FORGE AND MILL TO BE LET.—TO BE LET, for a term of years, all that well-known FORGE and MILL, situated at the LEVEL IRON-WORKS, near Brierley-hill, Staffordshire, consisting of a complete FORGE, with ENGINE of 26-horse power, two powerful helves, 16 puddling furnaces, and every other requisite; a large and complete MILL, with ENGINE upwards of 50-horse power, with squeezers for puddled balls, a train of two pair of puddled ball rolls, two trains of small rolls, trains of merchant bar rolls, hoop rolls, rail rolls, excellent cutter train for rods, numerous shears, drilling machine, five heating furnaces, and excellent lathe, and conveniences of every description. Two upright boilers are worked by the heating furnaces for the mill engine. The rolls, floor plates, furnaces, working tools, and other property belonging to the present tenant, may be taken at a valuation when possession is given.

As the present tenant, in consequence of a recent death, would have no objection to retire, any person wishing immediate possession of the works, may have the same in its present working state, together with the orders and connections of long standing, which are sufficient to find a regular demand for the produce of the works.

The works may be viewed, and all further particulars known, by application to Mr. R. Smith, the Priory, Dudley; or to Mr. James Holcroft, at the Level Mill.

FOUNDRY FOR SALE—NEWHALL FOUNDRY, with STEAM-ENGINE, CUPOLAS, BLACKSMITH'S SHOP, and other buildings, situated on the canal bank—one mile from Wyrley, two from Cannock.—The property, with half an acre of land, is leasehold, with 90 odd years to run, and will be disposed of on fair terms.—Apply to Dr. Burton, Walsall, Staffordshire.

*** *Coal in abundance within one mile.*

A GENTLEMAN, having experience in the management of an Engineering Establishment, in the Manufacture of Steam-Engines, and Machinery in general, will be happy to ENGAGE with a RAILWAY, IRON, or MINING COMPANY, to SUPERINTEND and take the MANAGEMENT of their WORKS. The first references can be given.—Address "M. I. C. E.," care of the Editor of the *Mining Journal*, 26, Fleet-street, London.

THE PATENT SAFETY FUSE, FOR BLASTING ROCKS IN MINES, QUARRIES, AND FOR SUBMARINE OPERATIONS.—This article affords the SAFEST, CHEAPEST, and most EXPEDITIOUS MODE of effecting this very hazardous operation. From many testimonies to its usefulness with which the manufacturers have been favoured from every part of the kingdom, they select the following letter, recently received from John Taylor, Esq., F.R.S., &c.:—"I am very glad to hear that my recommendations have been of any service to you; they have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name as evidence of this."

Manufactured and sold by the Patentees, BICKFORD, SMITH, and DAVEY, Tuckingmill, Camborne, Cornwall.

NOTICE TO THE PROPRIETORS AND SHARE- HOLDERS OF MINES, SMELTING-WORKS, &c.

Messrs. MITCHELL and FIELD beg to inform the PUBLIC, that they have REMOVED from No. 5 A to No. 23, HAWLEY-ROAD, KENTISH TOWN, where they have erected a spacious LABORATORY, fitted expressly for the performance of all OPERATIONS CONNECTED WITH MINING.—Practical instruction to gentlemen in Assaying, Mineral Analysis, and Manufacturing Chemistry in general.

Assays and Analyses conducted as usual.

All communications to be addressed to Messrs. Mitchell and Field, assayers, No. 23, Hawley-road, Kentish Town.

POLKINGHORNE'S PATENT METHOD OF TREATING TIN ORES.

Messrs. POLKINGHORNE & CO. beg to acquaint ADVENTURERS, and OTHERS interested, in TIN MINES, that they have just obtained HER MAJESTY'S LETTERS PATENT for the SOLE USE of a COMPOUND SOLUTION, effectually to CLEANSE TIN ORE from all extraneous metals—thereby increasing its value from £2 to £4 per ton.

Messrs. P. and Co. will be ready shortly to supply the article from their manufactory,

COPPERHOUSE, HAYLE, CORNWALL,

in casks of 10 gallons each, which quantity is sufficient for a ton of ore.—Price 10s. per cask, and license 5s. per ton of ore.—N.B. Every information can be obtained by applying at the patentee's offices, 12, Clement's-lane, London.—April 4, 1846.

STEAM COAL—WITHOUT SMOKE, as per experiments made at her Majesty's Dockyard, Woolwich.

CAMERON'S COALBROOK STEAM COAL, AND SWANSEA AND LOUGHOR RAILWAY COMPANY.—(Completely Registered and Incorporated.)

OFFICES—2, MOORGATE-STREET, LONDON.

The directors are now prepared to supply steam ship companies, manufacturers, shippers, and others, with the company's steam coal, either at the company's wharf at Swansea, or in London. A statement, showing by comparative trial the superiority of this coal for steam purposes over every other, and a scale of prices, may be had on application at the company's offices here, or at their wharf at Swansea.—March 18, 1846.

VALUABLE PATENT FOR SALE—RODDA'S SMOKE- CONSUMING APPARATUS, whereby an important SAVING OF FUEL IS EFFECTED.—This PATENT, which is well known, and its power and efficiency in the consumption of smoke admitted, as well as the great economy in the quantity of fuel employed, is now OFFERED FOR SALE by the proprietor, who, from the success which has attended its application in London, Leeds, Bradford, Sheffield, Derby, Leicester, Nottingham, and many other places, has perfect confidence in stating, that it would become highly valuable if in the hands of parties who would direct their attention to its more general application, and protect it from infringement. It has been used for several years in the breweries of Messrs. Barclay, Perkins, and Co., and of Messrs. Truman and Hanbury; also, at Messrs. Robinson and Belville's Grate Manufactory, Holborn, as well as other places in the metropolis, where it may be seen in operation.

For particulars apply at the offices of H. English, Esq., 5, Shorter's-court, Throgmorton-street, where plans, models, and testimonials may be seen, and any necessary information given.—St. Austell, Cornwall, April 15, 1846.

MR. H. B. RYE (from Cornwall), MINE AND RAILWAY SHARE AGENT, 80, OLD BROAD STREET, LONDON.
Mines inspected, and every information may be obtained on application.

THOS. P. THOMAS, of the late firm of Rye and Thomas, MINE AGENT, AND DEALER IN RAILWAY AND OTHER SHARES,
80, *OLD BROAD-STREET, LONDON.*

JAMES LANE, SHARE AGENT,
HALL OF COMMERCE, LONDON.

WILLIAM TRENERY, DEALER IN RAILWAY AND MINING SHARES.—ESTABLISHED TEN YEARS.
OFFICES, No. 50, THREADNEEDLE-STREET, LONDON.

PAUL RABEY, Jun., and CO., MINE AND RAILWAY SHARE AGENTS.
OFFICE—No. 12, COPTHALL-COURT, LONDON.

WILLIAM FOX and SON, No. 53, CASTLE-STREET, LIVERPOOL, have always on SALE PIG-IRON, RAILWAY BARS, CHAIRS, and IRON of every description.—TIN PLATES, WIRE, &c.

MESSRS. LAMOND, SMALE, and LAMOND'S PUBLIC SALE OF RAILWAY SHARES, &c., are HELD, at the Hall of Commerce Threadneedle-street, every TUESDAY and FRIDAY, at One o'clock precisely.—Orders received until Four o'clock of the day prior to sale.—London, April 24, 1846.

LAMERHOOE WHEAL MARIA COPPER MINE:
WHEAL CONCORD LEAD AND COPPER MINE:
WHEAL WALTER COPPER AND LEAD MINE:
ROSCARROCK SILVER-LEAD MINE:
WHEAL MARY (in Calstock) COPPER MINE:
LOSTWITHIEL CONSOLS COPPER MINE:
WHEAL KELLY CONSOLS COPPER AND LEAD MINES:

INFORMATION respecting the ABOVE MINES may be obtained, and the latest specimens inspected, on application to the secretary, who has ORIGINAL SHARES to DISPOSE OF in other new and valuable COPPER MINES, now bringing out. JAMES CROFTS, Secretary.
4, King-street, Cheapside, London, May 2, 1846.

VIRTUOUS LADY COPPER MINE:
WHEAL BEDFORD COPPER MINE:
TAVY CONSOLS COPPER MINE:
GREAT WHEAL WILLIAMS COPPER, LEAD, & TIN MINES:

THE BUSINESS of the ABOVE MINES is CONDUCTED at No. 5, BUCKINGHAM-PLACE, STONEHOUSE, DEVONSHIRE, where all particulars may be obtained. WALTER LOMER, Purser.

MINING OFFICES, REMOVED FROM 16, CORNHILL, to 1, THREE KING COURT, LOMBARD-STREET.—Mr. R. TREDINNICK (of Cornwall), having established PRACTICAL AGENTS and CORRESPONDENTS in every MINING DISTRICT, whereby he obtains early and accurate information respecting MINES, proffers his services to capitalists and adventurers in the PURCHASE and DISPOSAL of SHARES.

MINING PROPERTY.—CAPITALISTS who are disposed to INVEST in CORNISH and FOREIGN MINES, will find the present opportunity very favourable for so doing. From large sums having been lately diverted from such investments for railway speculations, standard mines are now selling at prices that will pay the purchaser 20 per cent. per annum for his outlay. There are also other mines that are on the eve of paying dividends, which can be recommended with confidence.
Applications to be made to Mr. JAMES HERRON, mining agent, No. 3, Adam's-court, Broad-street, London.

ANGLO-MEXICAN MINT OFFICE, 5, Broad-street-buildings, April 24, 1846.—Notice is hereby given, that the ANNUAL GENERAL MEETING of the shareholders in this company will be HELD at the office, as above, on Tuesday, the 5th of May next, when one director will be elected, in the place of John Schneider, Esq., who goes out by rotation, but is eligible for re-election, and will be proposed accordingly.—The chair will be taken at One o'clock precisely.
G. B. LONSDALE, Secretary.

ASTURIAN MINING COMPANY.—At a Special Meeting, held this day, at the request of the majority of the shareholders, it was Resolved,—That all shares on which the calls due on the 1st of October, 1845, and the 1st of the present month, shall not be paid on or before the 20th proximo, will be forfeited, and new shares issued, to be disposed of hereafter for the benefit of the company.
The numbers will be published. By order of the board of directors,
9, Austinfriars, London, April 27, 1846. K. MACKENZIE, Secretary.

MEXICAN COMPANY.—The directors hereby give Notice, that the ANNUAL GENERAL MEETING of proprietors in this company will be HELD at the office of the company, on Thursday, the 7th of May next, at One o'clock precisely, in conformity with the Deed of Constitution of the company.
32, Great Winchester-street, April 27, 1846. J. M. MAUDE, Secretary.

WEST WHEAL JEWEL MINING ASSOCIATION.— Notice is hereby given, that the ANNUAL GENERAL MEETING will be held at the company's office, as under, on Monday, the 11th of May next, at Twelve for One o'clock precisely. By order of the board,
57, Old Broad-street, April 20, 1846. WILLIAM NICHOLSON, Secretary.

STEAM-ENGINES.—From 8 to 20-horse power ENGINES ALWAYS IN STOCK.
Apply to Mr. CAPPER, ENGINE-MAKER and FOUNDER, BIRMINGHAM.
Price.....£14 per horse-power.

TO THE DIRECTORS OF RAILWAY COMPANIES,
RAILWAY CONTRACTORS, &c.
W. & C. YOUNG, MANUFACTURERS OF IRON WORK, &c.,
128, *HIGH-STREET, EDINBURGH, AND* 32, *ST. ENOCH-SQUARE, GLASGOW,*
beg to inform the DIRECTORS OF RAILWAY COMPANIES, and RAILWAY CONTRACTORS, that, having just completed extensive additions to their works, they are now enabled to undertake NEW CONTRACTS for every description of IRON WORK required for RAILWAY PURPOSES.—Strong wrought-iron Tension Bridges, for crossings, constructed upon a very economical and efficient principle; improved wrought-iron Gates, for fields, crossings, &c.; handsome wrought and cast-iron entrance Gates and Railing, for stations, &c.; waggon mounting, earth mattocks, and stone picks, made of the best material.—W. & C. Y. deliver the above free, at any of the principal ports of England, Scotland, or Ireland.

HALLETTE'S ATMOSPHERIC RAILWAY AND CANAL PROPULSION COMPANY.—(Completely Registered).

The EXPERIMENTAL LINE OF RAILWAY, at the ROSEMARY BRANCH PECKHAM, for EXHIBITING the APPLICATION of HALLETTE'S ATMOSPHERIC SYSTEM, IS NOW OPEN. Days of running—Wednesdays, Thursdays, and Fridays, between the hours of Twelve and Four. Tickets may be had, on application, at the office, Winchester-house, 52, Old Broad-street, London. EDW. J. COLE, Secretary.

PATENT GALVANISED IRON COMPANY.—At a Meeting of the proprietors of this company, held at the offices, 3, Mansion-house-place, London, on Tuesday, the 31st March, 1846, the following resolutions were adopted:—

1. Resolved,—That the report of the directors, and the accounts now submitted, be received and entered on the minutes.
2. Resolved,—That this meeting, deeply impressed with the great importance of complete railway communication between the company's works in Wales, the manufacturing districts, and the ports of the Bristol Channel, confirms and approves of the subscription by the directors, on behalf of the company, for 1000 shares in the Llynvi Valley and South Wales Junction Railway, appoints the directors trustees to hold the said shares on behalf of the company; and authorises them to do all necessary acts in pursuance of the engagements into which they have entered in respect of the same.
3. Resolved,—That a dividend, at and after the rate of 8 per cent. per annum, free of income tax, be declared for the half-year, ending 31st Dec., 1845, on all shares entitled to the same, and that the same be made payable on and after the 30th April next.
4. Resolved,—That John Field, jun., Esq., be re-elected a director of this company.
5. Resolved,—That Wm. Mallins, Esq., be re-elected a director of this company.
6. Resolved,—That the Rev. Thos. G. Hall be re-elected an auditor of this company.
7. Resolved,—That D. R. M'Nab, Esq., be re-elected an auditor of this company.
8. Resolved,—That the best thanks of the meeting be given to the chairman, directors, and managers, for the ability with which they have conducted the affairs of this company to the present time.
9. Resolved,—That the thanks of this meeting be given to the Rev. Thos. G. Hall and D. R. M'Nab, Esq., for their services as auditors of this company.

The Deed of Settlement is completed, and would have been laid before the meeting for execution, but has been detained by the Registrar of Joint-Stock Companies; it will, however, it is confidently expected, be ready for execution previous to the payment of the dividend on the 30th proximo. S. VINCENT, Secretary.
3, Mansion-house-place, London, March 31, 1846.

Transactions of Scientific Bodies.

MEETINGS DURING THE ENSUING WEEK.

Society.	*Address.*	*Day.*	*Hour.*
Entomological	17, Old Bond-street	Monday	8 P.M.
British Architects	16, Grosvenor-street	Monday	8 P.M.
Chemical	Society of Arts, Adelphi	Monday	8 P.M.
Medical	Bolt-court, Fleet-street	Monday	8 P.M.
Linnæan	Soho-square	Tuesday	8 P.M.
Horticultural	21, Regent-street	Tuesday	3 P.M.
Civil Engineers	25, Great George-street	Tuesday	8 P.M.
Society of Arts	Adelphi	Wednesday	8 P.M.
Geological	Somerset-house	Wednesday	8½ P.M.
Zoological	11, Hanover-square	Thursday	3 P.M.
Royal	Somerset-house	Thursday	8½ P.M.
Antiquaries	Somerset-house	Thursday	8 P.M.
Royal Soc. of Literature	4, St. Martin's-lane	Thursday	3 P.M.
Astronomical	Somerset-house	Friday	8 P.M.
Royal Institution	Albemarle-street	Friday	8½ P.M.
Philological	12, St. James-square	Friday	8 P.M.
Royal Botanical	Regent's-park	Saturday	4 P.M.

INSTITUTION OF CIVIL ENGINEERS.

APRIL 28.—The President (Sir JOHN RENNIE), in the chair.

The discussion upon the improvement of the Clyde navigation was renewed by a statement from Mr. Atherton, formerly resident engineer of the Clyde, under Mr. Telford. He gave a brief exposition of the past history of the Clyde navigation, from the time when the only craft on the river was a few herring boats, and the water was suffered to overflow a wide extent on either side of the channel, converting it into an extensive morass. He then gave the various projects for improving the navigation—Smeaton's design for a lock on the main channel, which fortunately was never executed. To Rennie, it appeared to be universally admitted, must be attributed the credit of propounding the general principle of the Clyde improvements, which were commenced under him, and were so successfully continued by Telford and others. Rennie's principle was, that the whole surface waters of the river should be brought within definite limits; that in the lower parts those limits should be very spacious, but gradually and equally diminishing upward, not by sudden *intakes*, but by gradual convergence of the restricted width. By this principle, the current of the land flood being concentrated, their power of augmenting the depth of the channel would have full opportunity of acting beneficially. It was also expected, that the rising tidal waters, entering between the widely extended limits of the lower districts, would expend their momentum as they ascended the conveying channel, in raising the height of the tidal wave, and produce an effect analogous to the extraordinary elevation attained by the tides in the Severn, in consequence of the gradual convergence of the shores of the Bristol Channel. Thus, the land floods and the sea tides were to combine in producing useful effects—the velocity of the former in deepening the channel at low water; the latter in preserving or continuing the surface of high water, even to Glasgow, at the estuary level. The difficulty was in commencing the works without funds; they were, however, begun in an economical manner, by running out jetties of fascines of wood and stone, from the opposite sides of the river, so as to bring the channel within certain limits. The effect of these jetties was to commence the deepening of the channel, by increasing the scour. Owing to the increase of manufactories, and of the iron and coal trade at Glasgow, shipping began to frequent the river; the port dues were kept low; and an annual revenue commenced; greater exertions were made to increase the facilities for admitting ships of greater draught. Telford followed in Rennie's footsteps, by uniting by stone dykes longitudinally the extremities of the projecting jetties; steam dredging boats were employed to cut away the shoals, and diving-bells to remove the rocks which impeded the free current of the stream. Walker followed the same course, and the result was, that the depth of water was so increased, that instead of only being capable of receiving fishing-boats of a draught of water of under 6 ft., vessels drawing 17 ft. were tugged by steamers to Glasgow quays, and the annual revenue of the port at present exceeded 50,000*l.* The speaker proceeded to comment with eulogy upon the proceedings of the Clyde trustees and their engineers—and dissented from the views of the Tidal Harbour Commission, in their recommendation of opening up the river for the free admission of the tidal water, so as to cause them to act by reflux; which it was contended by the speaker generally would not be so effective, as continuing to improve the channel, and persevering in the same course which had hitherto proved so effectual. Some discussion ensued, as to the propriety of some measures being adopted in certain parts of the river; but it appeared generally admitted that the work, so wisely conceived, had been very ably conducted, and that the results were to render the Clyde a model for works under similar circumstances.

SOCIETY OF ARTS.

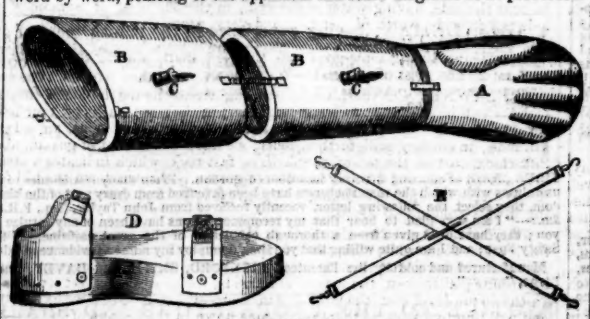
On Wednesday, the 22d April, the ordinary meeting was held at the society's rooms, Adelphi. RICHARD TWINING, Esq., F.R.S., presided.

ROYAL LIFE-PRESERVING AND SWIMMING APPARATUS.

Mr. JOHN KEYSE, the inventor of a new life-preserving and swimming apparatus, submitted a paper to the following effect:—

"Previously to reading my specification, in explanation of this apparatus for saving life, in cases of shipwreck, and accidents from bathing, &c., I will briefly mention that the various inventions to support the human frame in the water, hitherto put in practice, have gone on the principle of giving buoyancy to the body, which is, to a certain degree, naturally buoyant, and have neglected giving it to the extremities, which are not buoyant. This latter being a desideratum, I have made my apparatus on that principle—that is to say, of giving a sustaining power to the extremities, as well as their natural freedom for locomotion; in doing which I have watched the formation of the amphibious, as well as the aquatic, tribes, which I hope will be clearly seen, after the explanation of my apparatus."

Mr. Keyse then put on the apparatus, as below, and read the specification word by word, pointing to the apparatus and some diagrams as he proceeded.



DESCRIPTION.

A.—Gloves, with the hands webbed and extended; thereby producing considerable power and buoyancy, exceeding vastly the propelling power of each natural hand in the ordinary method of swimming, giving entire freedom to the fingers, dispensing with the contraction of the hand, and relieving the individual from the effects of cramp, which is often produced through such causes.

B.—Air-tight conical armlets, connected to the gloves, and which are detached into three parts, very simply connected; thereby leaving the elbows and wrist joints to entire freedom of action when applied to use, by being drawn on to the arms and hands. The armlets are drawn up to the points of the shoulders and elbows, confining the power of buoyancy when inflated on the leverage of the joints; thereby raising the individual over the surface of the waves of the sea, and keeping the head high, and the mouth free from the water. This inflation can be increased for providing additional buoyancy, when required, for protecting persons from drowning.

C.—Self-acting valves, for inflating the armlets. The ends to be placed between the lips, the nipple against the teeth, and forced back, opening the valve and blowing the air in at the same time. The nipple to be pressed down, when required to discharge the inflation, in cases of drowning, to preserve or secure the body. On rising to the surface, a new inflation will enable the diver to support the body, and the power of the apparatus to bring it ashore; thereby dispensing with the difficulties attending life-boats.

D.—Cork clogs, secured by elastic straps and buckles; concave at bottom, possessing the powerful advantages of propulsion, and giving to the wearer the apparent effect of pressing himself forward, as if forcing or projecting himself from some fixed substance. It, likewise, possesses the advantage of making considerable progress in treading water; thereby occasionally relieving the arms from the effects of long exertion. They are also of vast benefit in cases, where persons are a length of time immersed in water, by preserving the legs from depressing. The incalculably valuable part of this portion of the apparatus is clearly demonstrated; for instance, from the pressing down of a reversed vessel—such as a glass—immersed in water.

E.—Cross straps, passing over the back and shoulders, and fastened to the two rings of the upper armlets, for preserving the position when the inflation is sufficiently discharged, and permitting the diver or wearer to dive with facility.

Note.—The admirable principle and effects of this apparatus, are exemplified by the swimming powers of the frog, swan, duck, &c.—the body being entirely free, and possessing all its momentum or power, by the action of the extremities.

"As something like a competent authority for the efficient and practical working of this invention, beyond my own experiments, will naturally be expected, I will request the favour of the secretary reading to the meeting a letter from Mr. Paulin Pierce, the celebrated professor of swimming at Ramsgate, whose extraordinary and able evolutions in the briny element are well known to the nobility and gentry, who have visited that place of resort."

The secretary then read Mr. Pierce's letter, as follows:—

"SIR,—I have had the pleasure of testing your life preserver in the sea, off Ramsgate, on Friday, the 31st November, 1845; and it is adapted either for swimming on your stomach, back, treading water, and lying quite still, either on your back or stomach. In treading water the cork soles are invaluable; and I am convinced that it would be impossible for any person to drown, who was possessed of your apparatus. The armlets, with confined air, supporting the chin admirably above the waves, or ripple, requires no exertion whatever. The cork soles would propel a person forward, either on his stomach or back, sufficiently without any other exertion. The armlets alone are sufficient to support any person with clothes on, as the armlets are placed in the most useful position imaginable. The gloves are of great assistance in propelling forward. Sir, if your apparatus were generally used on the Serpentine, few lives would be lost in that stream. It would be of great use likewise in the navy, when landing in boats in face of batteries, or through a heavy surf; and it is able to teach swimming superior to all other life preservers in existence.—PAULIN HAGGETT PIERCE, professor of swimming, Ramsgate.

"To John Keyse, Esq., 27, Crosby-row, Walworth, London."

"The annual loss of valuable lives on the British shores *only* would, I think, be sufficient to induce every humane individual to further any practicable scheme for its diminution. However much credit may be due to the various inventions submitted to the public, I think it will not be denied, that they all, more or less, involve a degree of time for preparation—whereas, in my case, one or two minutes of time are sufficient for putting on, or pulling off, the apparatus. Now, the natural buoyancy power of a man of 11 stone in the water is 8 lbs. My apparatus will give the man an additional buoyancy, as follows:—The two upper armlets will average 9 lbs. together, the two lower armlets will average 6 lbs. together, whilst the two feet will give an additional 5 lbs together—making, in the whole, a sustaining power of 20 lbs. in addition to the natural buoyancy of a human being of the weight described. Now, if we allow for the action of the two webbed hands, as well as for the action of the feet, the additional buoyancy will be at least 15 lbs. more, giving to the person swimming with my apparatus a buoyancy, or floatable power, of 35 lbs. beyond his natural buoyancy as a swimmer. Therefore, if 8 lbs. will enable a man to sustain himself by exertion in the water, what will an additional buoyancy of 35 lbs. perform? The answer must be obvious; so that when I tell you the said swimmer can bring two persons ashore, I dare say you will give me credit for my statement. This invention of mine has been tested in the River Thames, private baths, and, more particularly (as that is a greater proof of its practicability and efficiency in cases of danger), in the open sea by Mr. Paulin Pierce, whose letter has been read to the meeting; in all of which cases, I am happy to say, the experiments were crowned with the most complete and admirable success. It will be found, on inspection and trial, to possess power and qualities which no other apparatus for the purpose at present does, by *giving buoyancy and momentum to the extremities, and so preserving the central weight of gravity*—thus enabling persons to swim against tides and cross currents; neither can any one be drowned whilst wearing the apparatus. It also dispenses with the necessity of teaching the art of swimming, by giving to the wearer the confidence and power to swim, and to save himself and others in case of danger. Its value to bathers, by dispensing with the life-boat, is incalculable; and in cases of wreck on sea-shores, it operation would be found most successful for the preservation of human life. Not to take up the time of the meeting needlessly, as the numerous cases of loss of life by shipwreck and bathing are familiar to the readers of all newspapers, I will mention a few cases only, in which my apparatus might have been successful. In the case of the *Boadicea* transport, wrecked off Kinsale, in Ireland, in 1816, when 200 of the 82d regiment were drowned. In 1842, the *Reliance*, from China, struck on the French shore, off Boulogne, when 100 individuals perished, within a few yards of the shore. On the 13th of January, 1843, 18 fishermen, leaving eight widows and 28 orphans, were drowned off Arvamore; and, on the same day, 46 others met a similar fate, off Down, in Ireland, leaving nine widows and 45 orphans. The late awful loss of the *Cataracui* also, off King's Island, in New South Wales, when 400 emigrants from this country perished, merely from the want of a rope being conveyed to the shore, or from the shore to the sufferers. A life buoy was launched, but did not reach the shore. In cases of bathing, I may also mention, that on the 15th October, 1845, two sons of Sir David Baird, a son of Capt. Lennie, and another young gentleman, pupils of Dr. Cowan, were drowned whilst bathing in the sea at Hendon Beach, Sunderland—had some one been present with my apparatus these lives would have been preserved. As to the number of wrecks, it appears, from a paper of the House of Commons, that, in the year 1845, of the British ships registered in this country, 534 were wrecked on our own shores, or elsewhere, besides steamers. How many valuable lives must have been lost in the aggregate of these awful calamities? In cases, also, of persons falling overboard from ships of war, or other vessels, it would be found to answer admirably, where the life buoy has proved a total failure—for here the swimmer makes direct towards the sufferer, whilst the life buoy is at the mercy of the winds or currents. Looking at the valuable qualities possessed by this simple contrivance of mine, with no difficulty, or loss of time, in applying it—capable of being put on, or taken off, as I have stated, in two minutes—I hope I shall be honoured with the approbation of the learned and scientific members of this society, so that public countenance and support may be given to my invention; but, bearing in mind the inefficiency of all the present means adopted for saving life (I mean in comparison only with this apparatus of mine), and also the daily and awful cases of loss of life from shipwreck, and other causes, at which the heart sickens to mention, I myself have no fear of obtaining the public patronage in support of the cause of suffering humanity."

Mr. KEYSE then submitted (what he termed) an endless floatable life-line for the person using his apparatus. He stated that the weight of a common rope, through its depression in the water, after a short distance, only tended to obstruct the progress of the swimmer in gaining the shore in cases of shipwreck, for which this floatable line was a remedy. The line being woven, and not twisted, would not curl in its progress through the water, and would move easily over a reel on the vessel. (Applause).

A MEMBER thought that the cork jacket, or belt, was preferable to Mr. Keyse's invention.

Mr. KEYSE said, the evil of such encumbrances round the body was, that they gave too much gravity to the centre, and caused such an irregular motion to the extremities as impeded the progress of swimming, which was not the effect with his apparatus, which gave the buoyancy to the extremities; besides, the body must be swayed to and fro by tides and currents, which was of serious consequence.

A MEMBER said, the cork clogs were more likely to be an impediment.

Mr. KEYSE begged to refer to Mr. Pierce's letter on that point. The clogs were a means of propulsion, and only gave such a buoyancy to the legs as brought them to an angle of 22½°, whilst the natural position in swimming was 45°. Then, there was their power in treading water, as stated in the letter, as most important; besides their utility in preserving the feet on rocky shores, and saving them from depressing in the sand, by their concavity.

In reply to the Chairman, Mr. KEYSE stated that Mr. Pierce had pledged to swim from Calais to Dover with this apparatus in the approaching summer.

Mr. JAMES GRAY said, allusion had been made to its use in the Serpentine. He thought this apparatus would be highly valuable to the gentlemen of Eton College, who were accustomed to bathe in large numbers in extremely dangerous parts of the Thames. Accidents were often occurring, when they had only the drags or life-buoy; were the watermen supplied with an instrument of this sort in cases of danger, life might easily be saved. Thinking it a very important subject, he had directed the attention of Dr. Hawtree, and other gentlemen of the College, to Mr. Keyse's invention, as very applicable to that large establishment, where bathing was so extensively practised.

Mr. KEYSE stated, that the average annual loss of British seamen was from 1600 to 1800 persons; and that were his apparatus used on board of vessels, instead of relying on assistance from shore, he was confident that one-half of that number might be saved annually. (Applause).

The CHAIRMAN said the matter was too important to be decided one way or the other at that meeting. It must be left as a subject for the consideration of the Committee of Mechanics, who would report on the value of such an apparatus. He thought, however, that Mr. Keyse was entitled to the thanks of the society for his invention.

Mr. PETTY VAUGHAN then moved, and Mr. VARNEY seconded the motion, "that the thanks of the society be presented to Mr. John Keyse for his invention."—The motion was agreed to unanimously, when the meeting separated.

A ROTARY STEAM ENGINE is now exhibiting at the Polytechnic Institution, which is applicable either to a stationary or locomotive purpose. It is worked by atmospheric pressure, upon a circular railway 25 feet diameter; and so compact is the arrangement, that even practical men are at a loss to discover its mode of operation—for there is nothing to be seen except the cylinder and wheels; the rest of the machinery being inside the cylinders. The arrangement consists merely of the ring of a drum—the inner surface of which is concaved across; over the concavity is laid a piece of flexable material, called metallized cloth, which is merely cloth dipped in a solution of metal, which renders it not only durable and strong, but also impervious to water or steam. At one part of the circumference of the drum, the cloth is held firmly against the concavity by a strap—on each side of which there is an orifice; one for the admission, the other for the escape of the steam. If, then, steam be allowed to enter the former orifice, it will traverse the circumference of the drum, between the metal and the cloth, until it escapes through the other orifice, producing considerable expansion in the cloth; but by causing the roller [so formed as to fit the concavity] to press against the cloth, holding it firmly against the drum, the steam, in its attempt to expand the cloth, will propel the roller before it, and this roller, being fixed to the end of a lever, gives motion to the shaft receiving through it the axis of the drum. The arrangement is rather difficult to be understood without the aid of drawings,—but being once seen, can be understood by the most unlearned in mechanism.

THE SWISS EXPOSITION OF INDUSTRY.—On Monday, the 3d of August next, will be opened in the city of Zurich, the general exhibition of the industry of Switzerland, being the first that has as yet taken place in the helvetic confederation.

NEW IRON MINE IN FRANCE.—A rich iron mine has been discovered in the environs of Nancy, on the territory Maxeville and Champigneulles. The extent of the bed is 286 hectares, and may be about 3 feet in thickness, which may be considered to yield at least 2,000,000 lbs. of ore.

Mining Correspondence.

ENGLISH MINES.

BARRISTOWN.—April 24.—The lode in the 18 fm. level end, west of flat rod shaft, is 2 ft. wide, producing 2 tons of ore per fm.; the lode in the eastern end, at this level, is 18 in. wide, producing about 2 tons per fm. The lode in the winze, west of flat rod shaft, sinking under the 12 fm. level, is 4 ft. wide, and produces over 3 tons per fm. The middle lode, in the adit end, is about 2 ft. wide, producing stones of ore. We have a cross-cut, south of engine-shaft, at the 24 fm. level, which will intersect the middle lode, and drain the piece of ground between Nangles' shaft and the mine. We have not yet cut the lode in footway shaft—the pitches look well. We commenced working the crushing mill on Thursday; it will get through 40 tons of stuff a day, with all possible ease to the engine—indeed, the motion of the engine is much more regular since we attached it. The carbonate of iron is kept distinct from the lead, and requires no further dressing for shipment; the quantity producing at present is very small.—THOMAS ANGOVE.

BEDFORD UNITED.—April 28.—At Wheal Marquis, there has been no lode taken down in the 80 fm. level east. The lode in the 70 fm. level, east of the slide, is 2 ft. wide, composed of gossan, spar, and ore; the lode in the stopes, in the bottom of this level, is worth 16*l.* per fm. There has been no lode taken down in the 58 fm. level east. At Ding Dong, there is no alteration in the 24 fm. level west since my last. At Wheal Tavistock, Phillips's engine-shaft is now completed to the 47 fm. level, and the sumpmen commenced cutting plat, &c. The lode in the 35 fm. level east is 1 ft. wide, composed of mundic and ore; in this level west the lode is 2 ft. wide, producing some good stones of ore. The lode in the south engine-shaft is from 4 to 5 ft. wide, composed of iron and good stones of copper ore.—JAMES PHILLIPS.

CALLINGTON.—April 27.—At Johnson's engine-shaft the men are now engaged fixing a plunger-lift at the 112 fm. level. In the 100 fm. level, both north and south, we are opening tribute ground. In the 90 fm. level driving south the lode looks very promising—the back will set at 5s. in the 1*l.*; in the north end, the ground we are driving through will set at 7s. in the 1*l.* In the 80 fm. level north the lode is producing silver-lead ores. In the 90 fm. level, driving south from the nor.h engine-shaft, the ground is rather harder than usual; the lode is producing silver-lead ores. In the 80 fm. level the lode continues productive, leaving ground that will set at a moderate tribute. In the 70 fm. level driving north we are opening ground that will set at 6s. in the 1*l.*; in the south end the lode is producing silver-lead ores. Kelly Bray lode, at the 90 fm. level, is intersected and hove by a slide.—J. T. PHILLIPS.

EAST WHEAL ROSE.—Accounts presented at the two-monthly meeting, held 20th April:—

Jan.—To costs this month...	£2264	2	4	By balance of the last account	£2728	1	7
Surgeon and club	32	9	6	Jan. 9—Proceeds of lead ore, sold this day	1993	14	0
Feb.—Costs this month.....	2039	3	10	23—Ditto ditto	2984	19	4
Surgeon and club	30	10	9	Feb. 6—Ditto ditto	3256	17	11
Bills these months	1728	4	7	20—Ditto ditto	2957	11	4
Coal ditto	85	6	9	Diff. in weight of ore Nov., short, credited last account	63	8	10
Dues	729	3	7	Cargall adventurers—agency, water charge, &c.	86	12	4
Income tax	100	0	0	Spare materials, sold at the mine	195	12	2
Dividend, 40*l.* per share	5120	0	0	A 36-inch engine, sold	363	0	0
Balance	2470	16	2				
Total	£14,599	17	6	Total	£14,599	17	6

EAST TAMAR CONSOLS.—April 27.—At Whitsun, our shaftmen are driving the 46 fm. level south, on purpose to try to hole to the whole workings made in the bottom of the 36 fm. level, as there would be no chance for them to escape, if they were working under the 46 when holed; the lode in this level north and south is looking very kindly. The lode in the 36 fm. level north is in slidy ground; I have set a pitch in the back of this level at 5s. in the 1*l.* for lead. Our survey day being last Saturday, I have set four pitches more—one at Furzehill, by six men, who have engaged to raise 6 tons of lead ore at ¼d. in the 1*l.*, to have 4s. in the 1*l.*, what is risen above the remaining part of the month. We have sampled 42 tons of silver-lead ores.—B. ROBINS.

GREAT WHEAL MARTHA CONSOLIDATED.—April 22.—The lode in the 60 fm. level east is 5 ft. wide, composed of capel, spotted with copper ore. We are inclined to believe that a part of the lode is now standing in the north, as a large quantity of water issues from that part; we propose cutting into it next week. At the new mine, the ground in the 20 fm. level east continues favourable; we are still driving on the hanging wall of the lode, occasionally opening on the latter. The lode in the eastern end is 8 ft. wide, composed of capel, with copper and mundic thickly disseminated throughout. The stopes in the back of this level being at present almost wholly composed of mundic; and an insufficiency of air preventing our working both them and the end to advantage, we considered it expedient to suspend operations here, in order to expedite driving the end west, it being many fms. from (short of having reached) the 10 fm. level end, where the lode continues of a most promising description. The pitch in the back of this level has not produced much ore during the present month, the tributers having been rising through a part of the lode, consisting principally of mundic. We are, however, glad to add, that the last stope has, as we anticipated, proved productive of good results, and the men are working with a full expectation of earning good wages. The engine, which was set to work on the day mentioned in our last report, is doing well. You will have perceived, by our yesterday's setting report, that the sumpmen have contracted to sink the new engine-shaft 10 fms. for 150*l.*, the cost in whim draining and landing included.—J. PRINCE. T. PENALUNA.

GUNNIS LAKE.—April 28.—The lode in Bailey's engine-shaft (now 6 fms. 4 ft. under the adit level) is upwards of 2 ft. wide, composed of gossan and spar, with spots of copper ore occasionally—a very promising lode. The lode in the 10 fm. level, east and west of western shaft, is 2 ft. wide, producing good stones of tin in places. The weather being more favourable, we have put two men to lay open the lode at surface, south of Wheal Hingstone lode, and in one pit, about 40 fms. west of adit level, it is 1 ft. wide, composed of spar, prian, and mundic.—WILLIAM RICHARDS.

HARROWBARROW CONSOLS.—This mine is considerably improved—a lode having been cut to the north of the Wheal Brother's lode in the deep adit, 4 ft. wide, 2 ft. of which is good stamps work; the Wheal Brother's lode at this point is about 1 ft. wide, composed of flookan, carbonate of iron, and spar. We have holed the deep adit to Brewer's shaft, and we are now clearing up the shaft.—B. COOKE.

HANSON.—April 27.—In reporting on these mines this week, I beg to say, that, at Treza, the sump whim-shaft is holed and completed to the 22 fm. level, and our sumpmen are now cutting a fork under the 22 fm. level, at the engine-shaft, to fix a forcing lift in. The 12 fm. levels (east and west) are suspended for the present, and the men are put to drive the 22 fm. level east and west of the engine-shaft, on Stainsby's lode, in which ends the lode is kindly, with some ore. At Hanson we have cut a branch at the 64 fm. level, north of the engine-shaft, which is poor for ore; but, from the quantity and pressure of water which we have, we expect to cut the main part of the lode soon. The 54 west, on Kib lode, the lode is 20 in. wide, with much mundic, and a great deal of iron gossan—a kindly lode, but unproductive.—Z. WILLIAMS.

HAWKMOOR.—April 28.—I beg to inform you that the lode in the 15 fm. level, east of Hitchins's engine-shaft, is about 1 ft. wide, composed of capel and spar, producing stones of ore in places.—P. RICHARDS.

HOLMBUSH.—April 28.—The shaftmen are still engaged in completing Hitchins's shaft to the bottom of the 120 fm. level. In the 110 fm. level, west of Hitchins's shaft, the lode is 15 in. wide, and worth 18*l.* per fm. In the 100 fm. level, west of ditto, on the north part, the lode is 2 ft. wide, and worth 28*l.* per fm.; in the 100 fm. level west, on the south part, the lode is 16 in. wide, composed of spar, mundic, and stones of ore; at this level, driving south, the lead lode is 6 ft. wide, composed of spar and flookan, with spots of lead; in the same level, driving north, the lead lode is 3 ft. wide, composed of spar and flookan; the lode in the stopes, in the back of this level, on the north part, is 2 ft. wide, and worth 25*l.* per fm.; in the 100 fm. level, west of Wall's shaft, the Flapjack lode is 2½ ft. wide, composed of spar, mundic, and spots of copper ore. In the 90 fm. level, west of Hitchins's shaft, on the north part, the lode is 1 ft. wide, producing stones of copper ore; in the same level, driving west, on the south part, the lode is 10 in. wide, and worth 6*l.* per fm.; in the 90 fm. level south, the lead lode is 3 ft. wide, composed of flookan, spar, and spots of lead. In the 80 fm. level south, the lead lode is 2 ft. wide, composed principally of flookan, with a little spar; in the rise, on the back of the 80 fm. level, against Bray's shaft, the lode is small and poor. In the 60 fm. level, west of Hitchins's shaft, the ground is favourable for driving.—W. LEAN.

LANIVET CONSOLS.—April 24.—Elizabeth shaft has been sunk 1 fm. this past month; our progress has been retarded here by means of breaking the windbore. Since which we have had a new one cast, again forked the water, and shall resume the sinking on Monday; we have about 6 ft. more to sink to complete this lift, when we shall immediately cross-cut to the lode. The 70 fm. level east has been driven 3 fms. 5 ft.—this end is got into soft ground, lode about 3 ft. wide, composed of flookan, soft spar, and a little ore; the 70 west is driven 3 fms. 2 ft. 3 in., lode about 2 ft. wide, producing a little ore; in cross-cutting the lode in this end, we have cut some small strings of ore, which will fall into the leader part further west; we have not yet reached the north part of the lode. The 60 fm. level east is driven 1 fm. 3 ft. 3 in., lode the same as last reported; in sinking the winze from the 60 to the 70, east of Elizabeth shaft, we got in on the north part of the lode, where we have some strong yellow copper ore; we are now cutting through the lode at the 70, where no doubt we shall be able to raise a quantity of ore. We have sett a winze about 35 fms. west of Elizabeth shaft, to sink from 60 to the 70 for ventilation, and cut out tribute ground; we have risen 1 fm. 3 ft. 3 in. against the whim shaft, the ground is much improved, and has let down the water, so that we shall resume sinking the whim-shaft on Monday, which we hope will be holed shortly.

LEWIS.—April 25.—Wh. Nutt engine-shaft is 6 fms. 3 ft. under the 50 fm. level, ground favourable; the lode is 1 ft. wide, producing some tin—a kindly lode. The lode in the 50 fm. level end east is 2 ft. wide, worth 5*l.* per fm. for tin—a very promising lode. The lode in the 50 fm. west is 2 ft., wide, yielding some tin. The lode in the 40 fm. level west is 2 ft. wide, producing some stones of good quality yellow ore—a very kindly lode; the 40 fm. level end east we shall now be enabled to resume, as we have holed copper ore shaft to the same level. The lode in the 30 fm. level east is 3 ft. wide, yielding some tin, with spots of yellow ore. The lode in the 20 fm. level west is 2 ft. wide, worth 50s. per fm. for tin. The lode in the 10 fm. level west is 2½ ft. wide, worth 50s. per fm. for tin; the back over the same level is working at an average tribute of 7s. for saving the tin.—S. S. NOELL. P. EDDY.

SILVER VALLEY.—April 27.—I beg to say that the tin lode, in the engine-shaft, is 3 ft. wide, composed of peach, capel, spar, jack, and mundic, producing some saving work. The lode in the 30 fm. level west is 1 ft. 6 in. wide, composed of capel, mundic, and peach, containing some good tin work; the lode in the eastern end is 1 foot wide, composed of capel and spar. The lode in the 20 fm. level west is divided by a horse of killas; the north, or main part, is 1 ft. 6 in. wide, composed of capel, spar, and peach; and the south part, which is capel, spar, and jack, is 8 in. wide, At the south shaft the 40 fm. level is cleared 3 fms. east; the lode is 9 in. wide, composed of flookan and killas. At the 30 fm. level the ground in the cross-cut, towards the copper lode, is changed, and is much more favourable for driving. The silver lode, in the stopes in the back of this level, is just as stated last week, being 1 ft. wide, with a branch on the south side, containing some grey and native silver. The 20 fm. level west is cleared 16 fms.; the lode we can see in places is about 1 ft. wide, composed of mundic, spar, and flookan. At Wheal Sisters we are clearing a run in the shallow adit level, and expect to get through shortly to examine the lode eastward.—S. RICHARDS.

TAMAR SILVER-LEAD.—April 27.—The engine-shaft is sunk about 5 fms. below the 145 fm. level; the lode in the shaft is small and poor. In the 145 fm. end the lode is 6 in. wide, composed of capel, with spots of ore. In the 135 fm. level the lode is 3 ft. wide, yielding work of a good quality; in the north end, at this level, the lode is 1 ft. wide, 6 in. of which is good work. In the 125 fm. level the lode is 2½ ft. wide, orey throughout. In the 115 fm. level the lode is 18 in. wide, work of a promising description. In the 105 fm. level the lode is 9 in. wide, producing good stones of ore. In the 95 fm. level the lode is small and poor. We expect to sample on Friday, the 1st May, about 80 tons of rich silver-lead ore. At North Tamar, in the rise in the back of the 60 fm. level the lode is 6 in. wide, composed of can and ore.—JAMES SPRAGUE.

TAVY CONSOLS.—The committee met on this mine on Thursday, the 23d April, and were highly pleased with the improvements which has taken place, both in the end and in the winze; the lode in the end is much larger than it has been—now 4 ft. wide, composed of a good-looking spar, mundic, peach, and ore, and not quite so hard as it was; the winze is now about 14 fms. from surface—the water is but very little; the lode is about 3½ ft. wide, with a horse of killas in it, but the north and south part is composed of spar, peach, mundic, and ore. Among the committee were several mining agents; it was agreed to continue sinking and driving until we could report some further alterations. Some of the gentlemen of the committee, who lived in the neighbourhood, were requested to call as often as they conveniently could, which they promised to do.—B. COOKE.

TINCROFT.—April 27.—I can speak of nothing particularly of new appearances or prospects of these mines since my last report. The 90 end east is home to the cross-course, beyond which, in the level above, we had a good lode for copper ore—we shall now have to drive 5 fms. south to find the lode to the east of said cross-course; the 90 west is now passing through a hard channel of ground, similar to what we passed through in the level above, beyond which we have some of our best tribute ground; in this hard ground we find but little ore. The 80 east and west, and also the 70 west, are laying open ground that will work at a moderate tribute. The 70, 60, and 50 ends east, are producing tinstuff; the 60 and 50 west are producing but a small quantity of copper ore; some of our pitches in this part of the mine have improved during the past week. At Palmer's, the lode in the 70 west is 4 ft. wide, 20 in. good ore, worth 25*l.* per fm., leaving good backs and bottoms; in a winze, sinking under the 60, immediately over this end, the lode is worth 10*l.* per fm.—this first winze is 5 fms. below the 60; 10 fms. to the west, we have another winze, which is 9 fms. below the same level—in this winze the lode is 4 ft. wide, worth 15*l.* per fm.; 20 fms. west from this last winze, we have another winze 6 fms. below the level, in which the lode is 6 ft. wide, worth 20*l.* per fm.; in every winze the lode appears to improve as we sink. The 60 west is producing some ore, and kindly; our pitches on this lode continue to produce fair quality work for copper ore. In the south mine, the engine-shaft, sinking below the 152, is worth 60*l.* per fm. for tin; the 152 end east is worth 20*l.* per fm.; the same level west is worth 30*l.* per fm. The 142 east is worth 15*l.* per fm. The 120 east is worth 15*l.* per fm. The 110 is worth 10*l.* per fm.; beyond the last named end, we have an excellent lode for tin, gone below the 100 fm. level; on the whole, I am glad to say, that our prospects continue good. The ground in the new shaft continues favourable—now nearly 10 fms. from surface.—W. PAUL.

TRELEIGH CONSOLIDATED.—April 24.—The 100 cross-cut, north of Christoe, driving in the country towards Christoe lode—the distance uncertain. In the 90, east of ditto, the lode is 3 ft. wide, worth 30*l.* per fm. at least—a very kindly end, 12 fms. to boundary; in the 90, west of ditto, the lode is 8 in. wide, no mineral. In the 80 cross-cut south we have cut several branches, but small; this is to intersect the south part of Christoe lode. In Garden's shaft, below the 80, we have 4 ft. more to sink to the 90 fm. level; we intend to commence taking down the lode on Monday next, it looks well—more particulars next week; in the 80, west of Goodfortune, the lode is 2 ft. wide, producing good stones of ore, and a kindly appearance. In the 70, west of ditto, the lode is 4 ft. wide, producing some ore, and very promising; we are daily expecting ore. In the 60, west of Symons's, the lode is 2 ft. wide, producing some ore, and kindly. In the 50 cross-cut north, the ground much as usual—expect to be near the lode, having water in the end; in the 50, west of Symons's, the lode is 2 ft. wide, worth 6*l.* per fm., and very promising. In the 20, west of ditto, the lode is 1 ft. wide, unproductive; in the adit, west of ditto, the lode is 3½ ft. wide, producing some good ore; the west shaft, sinking in the country, is about 20 fms. west of adit end.—W. SYMONS.

TRELAWNEY CONSOLS.—In shoding across the north part of this sett (land which has heretofore been considered glebe), we have cut four lodes, three of them are from 2 to 2½ ft. wide, and the other is 4 ft. wide, a good gossan lode; in shoding still further south, we have cut a floor of gossan, about 2 ft. thick, just on the top of the shelf, or fast rock, which indicates a strong lode a-head of us, and I think this floor of gossan is thrown down the hill from it. We have commenced sinking on the great lode, and have six men shoding in this ground.—B. COOKE.

TRETOIL.—April 28.—The lode in Henwood's shaft, sinking under the 70 fm. level, is 15 in. wide, composed of capel, spar, and good stones of yellow ore. In the 70 fm. level east the lode is 1 ft. wide, producing ore, and opening ground for tribute; ditto west, the lode is 20 in. wide, which will also set on tribute. In the 60 fm. level east the lode is 9 in. wide—unproductive; we expect this end will improve soon, as there is ore gone down in the bottom of the 50—further east than the 60 has been driven. In the 60, west of Williams's shaft, the lode is 15 in. wide, producing a little ore. In the 50, east of Henwood's, the lode is 6 in. wide, at present unproductive. Tregellas' lode, on which we are driving east (at the 40 fm. level, south of Russell's shaft), is one foot wide, producing a small quantity of ore. We have cut another lode, or part of this lode, in the 40 cross-cut, 4 fms. further south; it is about 6 in. wide, composed of ore and spar, and more kindly than the first part. This lode also underlays north, and, from its present direction, will unite with the other in driving east; we have only intersected it a few days since.—H. WILLIAMS.

UNITED HILLS.—April 28.—In the 90 fm. level we have cut through the north lode, which is 2 ft. wide, good ore; we are now driving to cut the south lode. In the 80 fm. level, in this rise, the lode is 4½ ft. wide, orey throughout, of low quality. In the 70 fm. level we have cut no lode as yet; in driving south, east of eastern shaft, at this level, the ground is a little improved since last week; west of James's shaft, the lode is 3 ft. wide, producing but little ore; in the diagonal shaft, there is no alteration since last reported. In the 60 fm. level, east of eastern shaft, the lode is 2 ft. wide, 1 ft. ore of fair quality; west of Harper's winze, the lode is 3 ft. wide, 18 in. ore of average quality; in the stopes, east of Harper's winze, the lode is 3 ft. wide, good ore; in the stopes, west of James's shaft, the lode is 5 ft. wide, 3 ft. ore of average quality. In the 50 fm. level eastern end the lode is 18 in. wide, coarse in quality; in the cross-cut, we can report no alteration. At Wheal Charles, in the 50 fm. level, the lode is 18 in. wide, producing some stones of ore. In the 40 fm. level the lode is 18 in. wide, 1 ft. ore of low quality. At Wheal Sparrow, in the 40 fm. level, the lode is 2 ft. wide, not producing any ore. In the 30 fm. level the lode is 18 in. wide, 1 ft. ore of average quality.—T. TREVENEN. R. WILLIAMS.

WEST WHEAL JEWEL.—April 27.—The ground in the 115 cross-cut is more favourable for driving; we have opened a little, east on the branch cut in this cross-cut, in the past week, and find it increasing in size—now 1 ft. wide, and of a very promising appearance. At the 100 fm. level west, on Wheal Jewel lode, the lode is 1 ft. wide, containing stones of ore. At the 85 fm. level west, on ditto, the lode is worth 10*l.* per fm. At the 70 fm. level west, on ditto, no lode taken down since our last. At the 12 fm. level west, on ditto, the lode is 15 in. wide, composed of gossan and spar. The ground in the 85 cross-cut is favourable for driving. At the 12 fm. level west, on Tolcarne tin lode, the lode is worth 8*l.* per fm. At the 12 fm. level east, on ditto, the lode is unproductive. At Wilkinson's engine-shaft, sinking below the 30 fm. level, the lode is 2½ ft. wide, composed of spar, mundic, and stones of copper.—S. LEAN. R. JOHNS.

WHEAL POLLARD.—April 16.—Labour cost for December, January, and February, 165*l.* 1s. 3d.; materials, 144*l.* 7s. 9d.; balance of last account, 295*l.* 19s. 9d.—together, 605*l.* 8s. 9d. By call at last meeting, 512*l.*, leaving a balance of 93*l.* 8s. 9d.—A call of 2*l.* per share was made.

WHEAL BUCKETTS.—At a meeting of adventurers, held the 20th April, the following accounts, to the end of March, having been examined, it was resolved,—That they be allowed, and a deposit of 5*l.* per share be at once paid to the purser:—

To balance due end of January	£1988	0	10				
February cost	161	3	0				
March cost (including 450*l.* for engine)	596	17	11				
January and February bills	431	12	6	3177	14	3	
Feb. 16.—By deposit on 256 shares, at 5*l.*	£1280	0	0				
Balance	1897	14	3	3177	14	3	

Report.—Since the last meeting of the adventurers, on the 16th Feb., we have finished clearing the engine-shaft, and are now sinking it under the 43 fm. level, at 18*l.* per fm., and have commenced driving the cross-cut, at the 43 fm. level, about 11 fms.; the first 2 fms. at 10*l.* per fm.—next 2 fms. at 9*l.*—next 2 fms. at 8*l.*—next 2 fms. at 6*l.*, and are now driving it at 50s. per fm.—the men getting good wages at that price. In about a month we expect to cut the lode at that depth; and, on intersecting it, we have every reason to expect that the water will readily be drained under the 32, so as to enable us to sink Buller's shaft, which is in the course of the lode, and also to sink winzes, by which, in a short time, we shall be enabled to give greater trial to the mine. The lode in the 32 east is 4 ft. wide—promising, but not rich ground—about 50s. per fm. In driving this level we have gone through some good ore ground; and, in the bottom of this level, there are upwards of 50 fms. of orey ground, which, on its being drained, will set at tribute. At the 32 fm. level west we have driven some fathoms on a branch south of the lode; the branch, or lode, has produced some ore, and will leave tribute ground. The 20 fm. level has been driven several fathoms east; the lode is about 1½ ft. wide, with a promising appearance—producing some tin; the water is decreasing fast, and there is no doubt but the engine will enable us to go a great depth. The whole amount due for engine and machinery being now charged, the bills in future will be but little, and much work can be done in this mine at a moderate expense.

MINING IN CORNWALL AND DEVON.—No. IV.

CARN BREA MINES—These mines are situate in the parish of Illogan, near Redruth, in the county of Cornwall, immediately east of Tincroft, Cook's Kitchen, Dolcoath, and Stray Park Mines, bounded on the north-west by East Pool, East Wh. Crofty, North Roskear, South Roskear, and Wh. Seton; on the south-east by South Wh. Basset, and North Wh. Basset, and forming a continuation east with Wh. Union, Penandrea, &c. Sixteen lodes have been discovered, of which seven have been opened, and partially worked upon; the principal lodes are those known as the Druid, Dobree's, Vigurs', north lode, Teague's, Hichens's, and the Highburrow. The extent of the sett is 1000 fms. on the run of the lodes, and about 400 fms. in a north and south direction. The company, for working the mines, is divided into 1000 shares, on which 15*l.* per share has been paid; the mines being held under Lady Basset, at 1-24th dues: the returns made during the past 10 years have amounted to 500,000*l.*, the dividends since the resumption of the working of the mine being 135,000*l.*, on a capital of 15,000*l.*, the dues paid amounting to nearly 25,000*l.* The number of engines employed is 11—consisting of two pumping engines, 76 and 50-inch cylinder, one of 36-inch, the remainder being 24 and 18-inch; the power being equal to full 500-horse power, including steam stamps, crushing machine, &c. The ore produces from 9 to 10 per cent., averaging 6*l.* 5s. per ton, and several of the lodes are productive of tin of good quality; the sales during the past 12 months, ending December, have been 6674 tons copper ore, yielding 39,422*l.* 14s., besides the tin (about 12,000*l.*), which is disposed of by private contract. The mine is carried on on the cost-book system, under the management of a London committee, composed of Messrs. George Dobree, L. Vigurs, W. Harrison, J. Macdonnell, and H. Alston; the offices are 35, Broad-street-buildings—Mr. Fleming, secretary. The discoveries now making we learn are fully equal to double the quantity of ore raised from the mine, which latter may be at present taken after the rate of 60,000*l.* per annum—thus holding out a secure investment from future returns, there being a vast extent of backs, continually increasing by the exploration of additional ore ground. The management at the mines is under Mr. Joseph Lyle, the principal mining captains being John Lenten, James Miners, N. Lenten, W. Roberts, John Dowe, and John Vivian; the engineer is Mr. R. Peters. The last sale of ores was 548 tons, producing 3260*l.* 9s.—among the parcels of which was 1 ton, sold at 50*l.* 5s. The principal workings, at least as regards the late discoveries, and from which ore is now being raised, is on the Druid and Highburrow lodes; some of the ores being obtained at shallow depths, one or two of the main points of working being at the 24 and 36 fm. levels. On Vigurs' lode alone it is calculated that not less than 1500 tons, or equivalent in money to 12,000*l.*, are discovered per month. The deepest level is on Teague's lode, at 146 fms. below adit, which is from 25 to 30 fms.; the extent of the workings, on the run of the lodes, may be taken at about 400 fms. The number of individuals employed is about 1000, about 700 underground, and the remainder at surface. The Hayle Railway, which passes through the sett, affords considerable facilities, and effects a saving of from 1500*l.* to 2000*l.* per annum. The meetings of the company are held annually, at the offices, 35, Broad-street-buildings. Reports are received from the mines every week, which are at all times open to the inspection of the shareholders. The last annual report, with the accounts of the company, will be found in our Number for March 21, which will better convey the present appearance and prospects of the company. There are no fees on the transfer of shares, and the accounts are printed annually, the cost sheets being at all times open to inspection, on application at the office of the company.

SOUTH WHEAL BASSET.—This mine is situate south of the Carn Brea Mines, and is divided into 256 shares, on which 2800*l.* has been called for; the sum of 45,000*l.* having been divided in the shape of profits. Ten lodes, producing copper and tin, have been discovered; and six partially worked upon, which, from their direction, are considered to be on the run of the lodes worked in the Consolidated and United Mines. There are three pumping engines, and three whim engines. The produce of the mines for copper, as shown by the Ticketing Papers, for the three months ending 25th March, was 561 tons, yielding 3092*l.* 1s. 6d. The mine is held on lease under Lady Basset, at 1-15th dues. The sett extends about 750 fms. on the run of the lodes, and nearly 600 fms. north and south. The management is confided to Capt. W. Richards, and the mine worked on the cost-book system. Meetings are held at the count-house on the mine every alternate month, and the accounts then examined and passed. Every share represents a vote, whether in person or by proxy. The average produce of the ore is 8 to 9 per cent.

CUBERT SILVER-LEAD MINES.—This undertaking is situated in the parishes of Cubert and Perranzabuloe, in the county of Cornwall; it includes the setts of Trebiskin, Trebellan, and Treworthen, held respectively from John Oats, Esq., Sir Richard Vyvyan, and the Earl of Falmouth, at dues of 1-16th and 1-18th, and comprises a length, on the course of the lodes, of about 600 fms. The operations of the present company commenced in the autumn of 1844, on the Trebiskin lode, which had been previously extended on at the adit level, for about 90 fms., and the backs worked away for a considerable length. A shaft had also been sunk by the "old men" to 6 fms. below the adit, and the lode cut at that place. The lode at the adit level is composed of gossan, soft spar, or quartz, strongly impregnated with carbonate of lead, and containing irregular masses of sulphuret of lead. An elvan-course is crossed obliquely by the lode, with a very beneficial effect, as was also well shown by the workings in the adjoining Trebellan Mine (now part of this property), sunk by the old adventurers to a depth of 45 fms. under the adit, and having a good course of lead in the elvan throughout. The Trebiskin lode has been cut at a depth of 15 fms. below the adit, and extended on about 60 fms., producing lead through most of that distance, though still partially accompanied with gossan and carbonate of lead. The lode, where in the elvan, is very good, and is now being worked in the back on tribute, by six men, at 2*l.* 10s. per ton. Other tributers are also working in the back of this level at a moderate tribute, and the ends driving are opening ore ground. The engine-shaft is down to a 25 fm. level, and the cross-cut being driven to cut the lode, which will probably be accomplished in two months, and each succeeding level will be nearer the shaft. The engine is of 36 inches cylinder, and is situate near the foot of the hill, overlooking an extensive flat, through which the lodes run; and the mine, buildings, and dressing-floors, situated on the slope, give an appearance of compactness and convenience not often witnessed. The mine is divided into 500 shares, on which 10*l.* has been paid, and is conducted on the cost-book principle. The proprietary are, with little exception, in London, and the business is conducted at the Mining Offices, 8, George-yard, Lombard-street—Mr. Henry Thomas being the secretary.

[FROM CORRESPONDENTS.]

PENNANT LEAD AND COPPER MINING COMPANY.—Under the auspices of an highly influential committee of management the Pennant sett has been taken up, and on which vigorous operations have been commenced. The sett extends over about 900 acres, and is situate in the centre of the lordship of Mowddwy, in the county of Merioneth, which is admitted to be one of the richest mineral deposits in the principality, and is held under lease from the lord of the said manor, at the usual royalty of 1-10th, for a term of 21 years, renewable for the same period, on payment of a fine, and is conducted on the cost-book system. This mine is in the immediate vicinity of Craigwen, Abercowarch, Fool Rhydd, and Cowarch Mines, which are all in course of the most satisfactory working, producing ore, yielding from 70 to 80 per cent. of lead, in addition to a considerable quantity of silver. Nearly all the lodes in the above setts pass through Pennant, from whence equally favourable results are anticipated. The backs of several of the veins have been opened on, and an adit is in course of driving to intersect lodes 2, 3, 13, and 16, and as a grand cross-cut of the veins generally. There is an abundant supply of water applicable to all mining purposes, and the many railways projected, now before the public, in this district, when completed, will afford easy, direct, and rapid communication for the transit of ores to shipping ports and smelting-works.

which will wholly supersede the necessity of water carriage. The lodes being in the mountain, will admit of driving deep adits, thereby unwatering the backs to a great extent. Twenty-two lodes have been discovered, of which the following particulars have been given by Mr. C. Dean, mineral surveyor:—"No. 1: lead lode—discovered in the brook to the north of Llanymowddwy Church, where it is 1 ft. to 3 ft. wide, and composed of flookan and spar, with crystals of lead. No. 2: lead lode—discovered in Cowarch sett, to the north-east of this sett, where it is about 3 ft. wide. No. 3: lead lode—composed of quartz, lead, and barytes. No. 4: lead lode—from 6 to 8 ft. wide, discovered in Cowarch sett, where it is composed of spar, lead, and quartz. Nos. 6 and 7: parallel lodes of lead—from 6 to 7 ft. wide, and underlay east about 2 ft. in a fm., being composed of spar, barytes, and lead; they are very promising lodes, and are likely to produce abundance of lead within a few fathoms in depth. Nos. 8 and 9: lead lodes—varying from 3 to 4 ft. wide; but as little has been seen of it, it cannot be accurately described. No. 10 is to be seen in Cowarch deep adit, and is 1 ft. wide, and underlays north 2 ft. in a fm., and is very congenial for lead. No. 11 was also cut in Cowarch deep adit, and produces very fine lead near the surface in the mountain in this sett, underlaying north. No 12: large lead gossan—10 to 12 ft. wide; it was discovered in the Llaith-Nant stream, and composed of mundic, spar, and lead, mixed with particles of copper, underlaying east 2 ft. in a fm., with every prospect of producing abundance of lead. No. 13 was also discovered in the Llaith-Nant, and is about the same size of similar composition and underlay. No. 14: valuable lead lode—from 4 to 8 ft. wide, and underlays south about 2 ft. in a fm.; it runs through the sett north-east and south-west upwards of a mile and a half in length; the northern wall is mountain limestone, and the southern wall shell gritstone, mixed with mica and mundic, which are highly favourable for the production of lead and copper. No. 15: copper lode—discovered in the Llaith-Nant, and is from 3 to 4 ft. wide, and underlays east about 2 ft. in a fm., and promises abundance of copper in depth; an adit driven north-west would cut this lode, and Nos. 13 and 14, very advantageously, 300 ft. deep, at little cost. No. 16: large lead lode—6 to 8 ft. wide, and is composed of lead and spar, &c. No. 17: very large lead lode—seen in the Llaith-Nant above the waterfall, and is 15 to 20 ft. wide, composed of friable spar, lead, gossan, and mundic, with everything congenial for producing quantities of lead, very probably within a few fathoms of the surface. No. 18: lead lode—above the waterfall to the north-west of the boundary of the sett, upwards of 5 ft. wide, underlaying north-west, about 2 ft. in the fm. No. 19 is seen to the north-west of the last lode, 4 ft. wide, and is a strong champion lode. Nos. 20 and 21: two lead lodes—the former 5 ft. wide, the latter between 2 and 3 ft., each underlaying north-west. No. 22: lead and copper lode—underlaying south east 6 in. in a fm.; it is 3 to 4 ft. large, producing lead within 20 ft. of the surface. The lodes Nos. 21, 20, 9, 8, 4, and 3. may be cut to great advantage 200 to 500 ft. deep, by an adit which can be driven north-west from the end of Purwrhyd Valley." We shall give the second report from Mr. Dean, also that of Mr. T. Kitto, jun., in our next.

BACHELOR'S HALL.—They are driving the deep adit end; a work of time—it will ultimately be a work of profit.

The Carn Brea Mines sampled on Tuesday last 758 tons.

GREAT WHEAL WILLIAMS.—They are driving the adit end—ground favourable for driving; the lode is showing some spots of lead.

PENCORSE MINE.—Accounts have been received mentioning the mine as looking well at present; the lode in the west end is about 3 ft. big, all saving work, composed of jack, mundic, copper, and flookan. The strata is very congenial for metal.

VIRTUOUS LADY.—They have commenced raising some copper ore, and hope it will soon pay cost.

WHEAL CALSTOCK.—They are about to commence sinking an engine-shaft on the great gossan lode, in the southern part of the sett, and an adit has been driven thereunder; the end is about 20 fms. below the surface, and a second much deeper; in both ends the lode is large, composed of fluor-spar, mundic, peach, and ore. They would have commenced before this, but an act, passed on the 9th of August, 1844, prevents their driving it for another week.

WHEAL HOLWELL COPPER MINE.—This mine is situated in the parish of Stoke Climsland, in the eastern part of Cornwall. A very fine lode has been lately discovered by Capt. Samuel Floyd, from 12 to 14 ft. wide, composed principally of first-rate gossan, intermixed with prian, mundic, and beautiful spar. Many mine agents have inspected the lode, and pronounced the back of it equal to that of the Great Wheal Maria, which is in the immediate neighbourhood; this sett is very extensive, and granted by the Duchy of Cornwall for a term of 21 years, at 1-15th dues.

WHEAL KELLY CONSOLS MINING COMPANY.—These setts are situate in the parishes of Dunterton and Bradstone, in Devonshire, four miles north of Wh. Maria, three miles north of Lamerhoee, and three miles west of Wh. Walter, and bounded by the Tamar, on the west, for three miles; they contain a number of lodes of copper and lead, towards which several adits have been commenced by a former company, but for want of means they never reached the lodes. The mine is held under lease for 21 years, at 1-15th dues, is divided into 2048 shares, and is to be worked on the cost-book system; 1*l.* per share is to be paid to obtain the setts, and to cover all incidental expenses; and calls for working the mine are to be made by the shareholders, at meetings to be called for the purpose. These extensive setts have been inspected by Mr. Jonathan Davey, in which, after enumerating the various lodes, which give highly favourable appearances, both for copper and silver-lead, he concludes, by recommending a general search for other lodes, by costeaning through the setts. The mine being bounded by the river for three miles, gives the greatest facility for deep adits; there is a good road through it, communicating with the quays, on the navigable part of the river, giving great facility for the transit of ores and materials; and from the sett being in a rich mining district, he recommends a spirited prosecution.

WHEAL MARY (Calstock).—The water is in the sump, and the men are driving the 20 fm. level.

WHEAL MEXICO.—They have set a water-wheel at work, to pump the water out of the western part of the sett; she does her work for the present. I fear she won't go very deep.

WHEAL TRELAWNEY.—The length of this sett is about 360 fms. on the course of the lode, the engine-shaft being about 60 fms. from the south boundary. The 12 fm. level has been driven 72 fms. north of the shaft, and 50 fms. south—total, 122 fms. The 22 has been driven 55 fms. north, and 50 fms. south—total, 105 fms. The 32 fm. level has been about driven 3 fms. The 12 fm. level is now driving by two men. The 22 fm. level is driving by six men; the bottom of this level is standing all in whole ground from north to south; the ends for 105 fms. in length, and a fine productive lode all the way, and one that scarce varies an inch in size or underlie for that distance. The 12 fm. level is driven to within 2 fms. of the south or Wheal Mary Ann boundary. The 22 is driven to within 3 fms. of the boundary of Mary Ann. After a communication is made from the 22 to the 32 fm. level by winzes, it is calculated that 120 tons of lead per month can be raised from the mine, the present raisings being about half that quantity. It will take six months to see the lode at another level, the 42.

WHEAL TREVENNA MINE.—The lode in the adit level has been driven to the extent of upwards of 100 fms., and has produced some excellent bunches of copper ore. On a late survey by practical mine agents, it was reported to be worthy of trial at greater depth; and at a meeting of the adventurers, held this week, it was resolved to do so, and the necessary operations and machinery were ordered for the purpose. There are other lodes running through the sett at the junction of killas and granite, which have not yet been opened; it is intended to explore these by a cross-cut from the present workings.

SALE OF COPPER ORES FROM THE CORNISH MINES,

FOR THE QUARTER ENDED MARCH 25, 1846.

[*Concluded from No. 554, April 4.*]

Mines.	No. of Tickettings.	Tons.	Amount.
Brought forward		30249	£164106 11 6
Wheal Harriet	1	187	842 13 0
Wheal Jewel	1	120	537 13 6
South Wheal Francis	1	50	45 0 0
Wheal Virgin	1	98	515 0 0
Wheal Buller	2	135	481 19 0
Wheal Brewer	1	83	338 12 6
Ting-Tang Consols	1	86	277 7 0
Providence Mines	1	60	237 8 0
Cook's Kitchen	1	37	199 16 0
Wheal Busy	1	98	187 2 6
Carn Perran	1	60	177 12 6
Wheal Treuwith	1	30	176 15 0
Wheal Rodney	2	51	172 11 0
Wheal Gorland	1	43	170 8 6
Tretoil	1	40	150 0 0
North Downs	1	18	114 6 0
Condurrow	1	25	112 10 0
Wheal Trythean	1	13	104 0 0
Redruth Consols	1	14	100 2 0
Wheal St. Andrew	1	41	97 1 0
Hanson	1	22	94 1 0
West Trethellan	1	21	79 7 0
East Seton	1	11	57 15 0
Wheal Ver	1	17	53 11 0
Lambo	1	15	45 7 6
Wheal Heary	1	11	38 4 0
Goon Vreea	1	16	35 12 0
Polbreen	1	3	24 15 0
East Reletian	1	4	14 16 0
Wheal Weeth	1	3	13 1 0
Tregothnan Consols	1	2	10 0 0
East Crinnis	1	1	4 15 0
Total for the quarter	Tons 31,664		£170,086 15 6

COPIAPO MINING COMPANY.

At a special general meeting of the shareholders of this company, held at the company's office, on Thursday, the 30th ult.,

HENRY HARMAN, Esq., in the chair.

The advertisement calling the meeting having been read, the CHAIRMAN proceeded to read the following report of the directors:—

REPORT.

The directors were induced to defer the half-yearly meeting of proprietors at the usual period, having, at the time, nothing new to communicate, and under the expectation of shortly receiving further intelligence from their manager at Copiapo. Letters having lately arrived, the directors have now the pleasure of laying before the shareholders a report of the state of affairs since the last meeting in October. They have, in the first place, to express the satisfaction they feel at being able to state an improvement in the general aspect of the company's affairs. According to statements received from the manager, it appears that the produce at the silver mine of Pampa Larga, during the months of October and November last, has been sufficient to defray the charges, with every probability that the mine would be for some time in profitable working. The produce of the copper mines of San Pedro and Checo has also increased, whilst the ore is reported to have much improved in quality.

Since the last meeting, the *Sunbeam* has arrived for the company, bringing 377 tons of copper ore; 276 tons of which were sold at Swansea on the 15th inst.—they averaged 25¼ per cent. of copper, and realised 18*l.* 19s. 6d. per ton; the remainder averages 25¾ per cent., and will be sold in a few days. The *Elizabeth Beyron*, with 270 tons of copper ore, sailed from Valparaiso on the 11th December last, but has not yet arrived. The *Dorothy Gales* was loading at Copiapo in the month of January last—she will carry about 450 tons of ore. The directors have engaged the *Auricular* and the *Alexander Harvey* at moderate rates of freight. These two vessels will together bring home about 900 tons of ore.

The latest advices from Copiapo are to the 26th of December last; on the 1st of that month the manager had a stock of about 2500 tons of copoer ores, raised at the mines in the valley—of these 700 tons were lying at the port, ready for shipment. The produce of the silver mine of Pampa Larga, from the month of October to that of November, was 456 quintals of silver ore (about 24 tons), which had been sent down to the amalgamation works for reduction. A box of plata pina, which arrived per *Sunbeam*, yielded 1297 ozs. of silver, and sold for 318*l.* 14s. 3d.

The manager states that, in the month of October last, he had succeeded in concluding a contract for the transport of the ores, so long lying at the mines of Morados; about 150 tons of them had already been carried down to the beach for shipment. The requisite preparations having been made in the month of March last, for erecting works at Malpaxo, to wash and dress the "halvans," or poor ores, lying at the mine of Checo; about 600 tons of these ores had been carried thither in December last, and 100 tons of clean ores had been concentrated from the same, which it was estimated would produce 25 per cent. of copper. An offer having been made to the manager for the purchase of a part of the estate of La Puerta, of no particular use to the company, the directors thought proper to authorise him to accept the same; the sale was accordingly completed, in the month of June last, for the sum of $12,000, about 2200*l.*

In reply to inquiries made by the directors, as to the practicability of smelting copper ores at Copiapo, the manager writes as follows:—"Smelting the poorer ores, as practised at Coquimbo, cannot be done at Copiapo—the scarcity of fuel, and distance of the mines from any convenient locality, added to the great expense of erecting furnaces, and the high rates of wages of the labourers, and other parties employed, would only leave a heavy loss. After frequent consultations with the mining captain, respecting the introduction of machinery from England, for the purpose of concentrating the poorer ores, he is decidedly of opinion that the present mode in use at Copiapo, of dressing them, by washing and jigging, is preferable to any other." On the 8th August last year, the directors wrote to their manager, urging the necessity of adopting measures for lessening the heavy expenses of the establishment at Copiapo, as much as consistent with the security of the property. On the 26th December last, he writes that, in compliance with the directions of the board, after repeated consultations with the mining captain on the subject, it had been decided to discharge all the men then employed in exploring works at the mines of San Pedro and Checo—only retaining a sufficient number to continue the produce of the above mine, at the rate of about 100 tons a month, during the next six months.

The deputation which waited on the Board of Trade, to urge a reduction of the duty on foreign copper ores, unfortunately did not meet with any success. The dull state of the market for copper has occasioned a serious depression in the price of copper ore, which, owing to the heavy duty, cannot at present be imported into this country with any profit.

The attention of the directors has, in consequence, been turned to the practicability of finding some better market for their copper ore, and, with this view, they have already ordered a small cargo to be shipped direct to the continent of Europe, which they hope may render a favourable result. The communication with the Pacific, across the Isthmus of Panama, being now established by the British Government, for the conveyance of letters and passengers, it is to be hoped that in future the facilities of more rapid correspondence with Chili, will prove beneficial to this company.

The last report from the mining captain, dated Copiapo, Nov. 28, 1845 [inserted in the Journal of the 18th ult.], was also read.—It was then proposed and seconded, that the report be received and adopted, which was carried unanimously.—The thanks of the meeting were afterwards voted to the chairman and directors.

EAST WHEAL KITTY MINE.—At a general meeting of adventurers, held at Pearce's Hotel, St. Agnes, on Thursday, the 23d ult., it was resolved—That the accounts (see below) now laid before the meeting, showing a balance of 12*l.* 0s. 9d. against the adventurers, be received and adopted—that a call of 5s. per share be now made and declared. The following report was read to the meeting:—"During the past four months ending March, the adit level has been driven upwards of 20 fms. on the course of the lode; the present appearance of the lode is promising, and, indeed, looks better than we have at any time seen it; it is 2½ ft. big, and is composed of flookan, gossan, mundic, and copper ore; the specimens now produced show clearly the nature of the lode, and gives promise of what we may expect from exploring farther on its course. The nature of the country, too, appears more favourable—and, on the whole, our prospects are of a cheering kind." The following is the statement of accounts referred to:—Amount against the adventurers at end of 1845, 8*l.* 8s. 3d.; January cost, 9*l.* 7s. 7d.; February, 7*l.* 11s. 3d.; March, 8*l.* 1s. 2d.—together, 33*l.* 8s. 3d. By amounts received on shares since last meeting, 21*l.* 7s. 6d.—leaving balance against the adventurers, 12*l.* 0s. 9d.

GEORGE AND CHARLOTTE MINING COMPANY.—A meeting of the adventurers in this mine, was held at Tavistock, on Tuesday, the 27th ult., when a call of 2*l.* per 128th share was made. From the report of the mine, furnished by the captain, there is every probability of its being shortly in a state of profitable working. The late discoveries made here have created a demand for shares, at an advanced premium.

CREBOR CONSOLS MINING COMPANY.—The adventurers in this mine met at the same place and time, and made a call of 2*l.* per share. We have been in expectation of receiving detailed reports of the proceedings in these most promising adventures in time for the present Number, which are not yet to hand. Perhaps our friends will bear in mind that Saturday morning is too late for publishing reports of meetings.

SOURTON CONSOLS.—At a meeting, held at Plymouth, on the 23d inst., it was resolved—that a water-wheel should be erected at once, for the effectual draining of the mine, and that the committee do assist to carry out the work, agreeable to the plans and specification then produced by the captain.

WHEAL PENROSE MINING COMPANY.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—My attention has been called to the leading article of your paper of the 18th inst., and another paragraph in the same paper, attacking my conduct, in respect of the material account of this mine. I do not feel it at all necessary to enter into the question beyond a simple statement of the facts of the case, which will enable a discerning public to ascertain who has acted with dishonesty and discredit in the matter.

At the first meeting of the adventurers in this mine, held 28th October, 1842, the following resolution (amongst others) was passed, *and entered in the cost-book*—namely, "Resolved further, that we purchase of the Rev. Canon Rogers the materials of, and belonging to, this mine, for the sum of 2000*l.*, &c.; and that a call of 10*l.* per 1-128th share be made, to pay in part this amount, and for the further working of this mine"

At a meeting of the adventurers, held the 21st day of December, 1842, it was resolved, that a sum of 700*l.* be paid by the purser into the Cornish Naval Bank of Falmouth, to the credit of the Rev. Canon Rogers, in part payment of the purchase-money and interest for the materials, agreed to be purchased of him by the adventurers of Wheal Penrose, and which was accordingly done, and the amount was charged in the cost-book at the account, held March 22, 1843.

At a meeting of the adventurers, held 12th July, 1843, a further sum of 700*l.* was charged in the cost-book in this account, and paid by check of the purser, 13th October following.

At a meeting of the adventurers, held 13th May, 1845, *the balance of this amount and interest*—namely, 696*l.* 15s. 3d.—*was charged in the cost-book*, and forms part of the balance now due on the same.

Having lately received a peremptory demand from Canon Rogers' solicitors for the said balance of account, and not being in a position to comply with it, I thought it was my duty to call a meeting of the adventurers, to decide how this demand should be met.

I have now to ask, Sir, upon whose authority you have made the assertion, that the transaction referred to was "kept quiet; or that certain, if not all, of the adventurers were innocent that such claim existed?" whereas, at the commencement of the concern, the transaction was entered in the cost-book, and the balance has been charged for more than 11 months, and a notice of that and the former charges sent to every adventurer in the mine.

Helston, April 22. J. G. PLOMER, Purser.

[The remarks complained of were founded on information received from a London shareholder, and may be considered as representing his views. We have omitted the latter part of Mr. Plomer's letter, as being not only irrelevant to the subject, but written, we feel assured, at a moment of excitement, for which there could exist no real cause.]

TREADMILLING MINERS.

SIR,—I beg to direct your attention to the manner in which miners are sentenced by judges to two years "hard labour!" at the horrid treadmills of this country, as if they were idle vagabonds too lazy to work for their living. Their drunken sprees are, doubtless, outrages upon the peace of the community, but we have no right to inflict permanent physical injuries for a passing wrong; "Starvation point" is bad enough; but to behold a treadmilled wretch returning to his family and his mine, crippled in body and soul, is 10 times worse.

Penzance, April 21. ALFRED T. J. MARTIN.

VENLAND MINING COMPANY.

SIR,—In looking over your paper of the 4th inst., I see a statement respecting Venland, setting forth that 10 lodes have been discovered, and that an adit has been driven 60 fms. to intersect a principal lode, and 90 fms. on its course, &c.; and also that an acting cylinder-engine has been purchased at Tregothnan Consols, for the sum of 410*l.*, including a 10-ton boiler, and other materials. I believe the statement to be correct, and that any person reading the above account would naturally suppose that the mine was in full work. I now wish to call your attention to the management of the mine. About the 12th of Feb., 1844, a company was formed, the mine was divided into 64 shares, since which it has been put into 128 shares; we used to meet regularly, many men were employed, and everything went on very satisfactory until about July, 1845, when a gentleman arrived from London, armed with proxy papers, who called (what I consider) an illegal meeting, for few had notice of it, until the same day on which it was held, and some only just before it took place. He proposed to turn out the purser, which he did, and appointed another, although opposed by all the shareholders present; appointed a London committee of three (I believe to be called a committee of management), when the shareholders of the neighbourhood were well pleased with their own, which consisted of very respectable shareholders of the town, men of principle and integrity. We have now seldom a meeting. The above gentleman has been here for several days, but has not condescended to call us together. In February, we had a 5*l.* call per share, towards the payment of the engine, which became due the 18th inst. We have three London managers, one superintending captain, one purser, one captain, and a surgeon. I am sorry to trouble you so much, but hope it may arouse the adventurers to inquire into the state of the mine; I believe the prospects of the mine to be very good, if properly worked. AN ADVENTURER.

Liskeard, April 29.

MINE ACCIDENTS—IMPORTANT DISCOVERY.

TO THE EDITOR OF THE CAMBRIAN.

SIR,—I beg to claim the assistance of your paper, in presenting to the public a recent discovery, which importantly concerns all parties interested in the working of coal and other mines—it relates to a method for subduing the carbonic acid gas, or, in the language of miners, choke damp, which is generated in most subterranean establishments, the dreadful and fatal effects of which are so frequently being presented to our attention. All means of prevention hitherto employed have been ineffectual. Lime-water, fires to promote circulation of the air, the fumes of sulphur and nitre, &c., have alike been attempted in vain. A remedy has at length been discovered, simple in its nature, inexpensive and easy in its application;—it consists in vessels of boiling water being placed about the suspected parts of the mine, the steam from which, in its dispersion, combines so intimately with the carbonic acid gas, as by its condensation no mixture with the atmosphere takes place, and consequently the much-dreaded evil is effectually averted. I have made this communication, impelled by the belief that any person possessing a knowledge, the publication of which is calculated to have a beneficial tendency, fails in his duty as a neighbour and a Christian, should he withhold such knowledge. I should observe that, as I am not putting forth any scientific experiences of my own, I can afford to be concise and simple in my relation, and abstain from glorifying myself, and amusing my readers, by a grand ostentatious flourish, which, were I ushering forth my own offspring, it would undoubtedly be my duty to indulge in, in humble imitation of my more distinguished contemporaries. The author of the foregoing discovery is a Frenchman, Mons. Hancille, and may he meet with all the honour and reward which are his due. It was communicated by him, on the 30th of last month, to the Academy of Sciences at Paris, and the experiments to which it has been subjected have met with the most decided success. S. P.

NATIONAL BRAZILIAN MINING ASSOCIATION.

Case, Opinion, and Various Judgments, whether the Holders of Unstamped Shares, in the National Brazilian Mining Association, are entitled to rank as Shareholders.

Upon the statement submitted to me, I am of opinion that the holders of the unstamped shares in the National Brazilian Mining Association, are not entitled to come in and claim the benefits now likely to result from the working of the mines of that association. It is quite clear, that during the last six years, whilst the prospects of the association were unpropitious, those parties *held back* and refused to contribute towards the expenses of conducting the speculation; and where parties so act, and *decline* to help the adventure when in *adverse circumstances*, it has been held, that they cannot, afterwards, when the exertions and *funds of others* have made it prosperous, *claim to share in that prosperity.*

In *Norway v. Rowe*, before Lord Chancellor Eldon, 19 Vesey, a motion was renewed upon the answer for a receiver; and issues were pressed whether the plaintiffs were partners in the old licenses; and whether they have now a right to enter and dig, or have abandoned their right.

His Lordship said—"In the case of *Texhouse v. Christian*, Lord Rosslyn advanced a doctrine with regard to mining concerns, upon which at least the Court would not refuse to act without great consideration; holding, that if the plaintiff, not having the legal interest, *stands by, suffering the defendant to incur great expense and risk*, that is a case not to be admitted in a Court of Equity. Consider the nature of such a concern? It frequently remains for years in the most hopeless state; and may, at last, be rendered profitable by an adventurous speculator, embarking property of his own and others in the pursuit. There are persons who *will stand by, see the expenditure incurred, if it turn out profitable, set up their claim; if otherwise, have nothing to do with it.* It deserves great consideration whether the Court would interpose, even by decree, much less on motion." MOTION REFUSED.

In *Pendergrast v. Turton*, before Vice-Chancellor Knight Bruce, 1—Younge and Collyer.—The plaintiff had been the owner of several shares in a copper mining company formed in 1827, and having neglected or refused to pay *an additional call* of 5*l.* per share *(he having already paid the full amount of his shares which were of 50l. each,)* his shares were declared forfeited. In 1835, the company became fortunate, and the plaintiff then applied to have his shares restored. The directors refused, and the plaintiff filed his bill to be let into the receipt of the profits with the other shareholders.

The Vice-Chancellor said—"The point which has struck me from the beginning, is the time at which the suit has been instituted, having regard to the peculiar nature of the property and the circumstances of the case. This is a mineral property—a property, therefore, of a mercantile nature, exposed to hazard, fluctuations, and contingencies, of various kinds: requiring a large outlay, and producing, perhaps, a considerable amount of profit in one year, and losing it the next. It requires, (and of all properties, perhaps, the most requires,) the parties interested in it to be vigilant and active in asserting their rights. This rule, frequently asserted by Lord Eldon, is consonant with reason and justice; Lord Eldon always acted upon it, and has been followed by subsequent judges of great knowledge, experience, and eminence. Now, in the present case, conceding, for the sake of argument, that the shareholders *could not be compelled to contribute* beyond 50*l.* a share, and did *no wrong* in declining to make advances beyond that sum, yet the result of all the circumstances of this case appear to have been that the mine *could not be carried on without further outlay.*"

"The plaintiff objected to this further outlay; and then a considerable discussion ensued, which was substantially concluded in 1828. In this state of things, the concern not improving, the plaintiff refused to contribute, and parties were found to carry on the concern through several years, down to 1835. In November, 1837, when it appeared that a profit had been made by the unassisted efforts of those who still adhered to the speculation, the plaintiff applied for and claimed his shares, which being refused the bill was filed in September, 1838. I was anxious, being very much impressed with the counsel's opening of the case, as it related to the conduct of the directors, to have the time which so elapsed in some way accounted for—to have the chasm between the years 1828 and 1837 in some manner filled up—to have the conduct of the plaintiff during that time in some measure explained—to have the case placed in a position, upon which the Court could fasten itself, in order to give the plaintiff that property which he might have been entitled to, had he presented himself here in due time; but I am unable to find the means of doing this; here is a mineral property, the subject of great uncertainty and fluctuation, after its character has been established with much difficulty, after a period of 9 *years, during which he rendered no assistance to the concern*, a claim is brought forward by him, who is *now willing to share in its prosperity.* I find it, therefore, impossible to give to the plaintiff that relief which he seeks." BILL DISMISSED.

The plaintiff appealed from the decision of the Vice-Chancellor, and it was heard before Lord Lyndhurst, November 18, 1843. *Jurist*, vol. 8, p. 205.

The Lord-Chancellor, after having stated the facts, said—"The question is, whether in a precarious business of this nature, *a party lying by, and lending no aid to the concern in its declining state, nor taking any steps to enforce his asserted right*, can, on a return of prosperity, and when *the risk is over*, be allowed to come forward and urge a claim to share in the profits of the adventure. The reasonable inference—and, indeed, the *only inference* to be fairly drawn from the evidence as to the conduct of the plaintiff—is, that *he would never have advanced this claim if the affairs of the company had continued in an unfavourable state.* The Court can *never* sanction this sort of *conditional acquiescence.*

"To allow the party to *lie by* in a case of this nature, to *watch* the course of events, *to urge his claim*, if it should be to his advantage to do so, and to abandon it on a continuance of misfortune and loss, which as a proprietor he must have shared, would be at *variance with the plainest rules of justice.* I think that this cause comes within the principle stated by my Lord Eldon in *Norway v. Rowe*, in observing on the decision of Lord Rosslyn, in *Texhouse v. Christian*, and that the judgment of the Vice-Chancellor must therefore be affirmed."—GEORGE COCHRANE, Chancery-lane.

WORK PERFORMED BY CORNISH ENGINES.

The number of pumping-engines reported for the month of March is 32—the quantity of coals consumed being 3198 tons, lifting, in the aggregate, 31,000,000 tons of water 10 fathoms high—the average duty of the whole is, therefore, 54,000,000 lbs. lifted 1 foot high by the consumption of a bushel of coal. The following have exceed the average:—

Mines.	Engines.	Length of stroke	Load in pounds.	Load per sq. inch on plat.	Strokes per min.	Consump. of coal in bus.	Million lbs. lifted 1 foot by consump. of 1 bush. coal	Average quantity of water per min.
Wh. Prosper..	Western, 80-in.	9·7	87,435	13·9	6·5	3300	54·6	1382·3
Ditto	Roberts's 70-in.	9·75	62,580	12·6	6·8	1960	65·4	
Godolphin	Sims's 80-in.	10·0	75,017	12·1	7·7	2860	66·9	—
Wheal Vor ..	Borlase's 80-in.	10·0	118,882	18·9	7·1	4824	56·7	417·0
E. W. Crofty	Trevenson's 80	10·33	84,887	12·6	3·7	2078	56·6	209·4
Carn Brea	Sims's 50, 99 in. combined	9·0	34,342	13·6	7·0	1493	61·8	—
United Mines	Taylor's 85-in.	11·0	91,656	14·6	7·3	3790	84·1	1751·7
Ditto	Eldon's 30-inch	9·0	13,681	16·0	8·7	630	67·3	
Ditto	Loam's 85-inch	10·0	89,320	11·8	7·9	4175	59·8	
Ditto	Hocking's 85-in	10·0	98,368	14·6	8·3	3589	82·6	
United Hills..	Williams's 80	10·0	74,868	11·9	7·1	3584	82·9	493·4
East Wh. Rose	Penrose's 70 in.	10·0	42,257	9·8	3·2	1026	98·7	745·7
Ditto	Michell's 70-in.	10·0	52,806	12·3	6·3	2600	57·0	

VALUABLE DISCOVERY OF LEAD IN THE ISLE OF MAN.—In excavating the rock opposite the Court-house, for the purpose of deepening our harbour, the workmen have come upon a small vein of lead ore, and not less than 4 cwts. of excellent ore has been raised, containing a proportion, it is supposed, of about 90 ozs. of silver per ton.—*Mona's Herald.*

PRICE OF MATERIALS,

1ST OF MAY, 1843, 1ST OF APRIL, 1845, AND THE 20TH APRIL, 1846.

CAST-IRON.	1843.	1845.	1846.
Cylinders, covers, pistons, piston-caps, nozzles, air-pumps, and covers, bored and turned ... per cwt.	24s	28s	30s
Cylinder cases	20	28	—
Cylinder bottoms, condensers and bottoms	17	20	22
Steam and eduction pipes, straight and crooked	10½	13½	11–14
Feed ditto ditto	9½	11½	9½–11½
Beams, cast open	10	12	13
Ditto, cast close	14	16	17
Gudgeons, troughs, shafts, bearing and top blocks, sockets, and saddles	7	10	11
Gudgeons and shafts, turned	12	15	17
Fly-wheels, complete	11	13	14
Segments and arms for ditto	8	10	11
Centre pieces for wheels, capstans, &c.	10	13	14
Ditto bored	14	17	18
Spur-wheels, 1 cwt. and above	10	13	14
Under ditto	12	15	16
Bevel ditto	12	15	16
Ditto, under 1 cwt.	12	15	18
Cranks	8	11	12
Ditto, bored	14–17	20–23	18–24
Hot-water cisterns	14	17	18
Manhole branches and doors	10	13	14
Ditto faced	15	18	20
Fire-door frames, sleepers, and fire-bars, cast open	5½	8	8
Ditto ditto ditto cast close	7	10	10½
Dampers and frames, cast open	6½	9	8
Ditto cast close	7½	10	10½
Boiler stands	5½	8	8½
Plain pumps, 4-inch bore and above, and windbores	6½	9	9
Short ditto	7½	10	10
Hollowstools for beams	12	15	16
Working barrels	14	17	17
Plunger, knee, and H-pieces, and clack-seat pieces, under 4 ft. long	14	16½	17
Doors and bottoms for ditto	5½	8	8
Ditto ditto cast close	7	9½	9½
Clack-seat pieces and doors	10	12½	13
Plunger-poles for shaft work, 6 inches diameter and above	24	27	27
Ditto ditto under 6 inches	27	30	30
Stuffing-boxes and glands, bored	18	21	22
Valves, seats, and clacks	8½	11	11
Ditto ditto turned	15	18	18
Air-pipes, 4 inches diameter, and 6 feet long ... each	7	9½	9½
Whim-shieves, 4 feet diameter, light pattern	14	17	17
Ditto 3 feet 6 inches ditto	12	15	15
Ditto 3 feet ditto	10	13	13
Ditto 2 feet ditto	7	9	9
Ditto 1 foot 6 inches ditto	6½	8	8
Capstan and whim-shieves—all sizes, heavy pattern ... per cwt.	8	10	10
Flat-rope shieves	8	10	10
Tram wheels	7	9	9
Ditto bored	11	14	14
Tram saddles	7	10	11
Stampheads	5½	8	8
Ditto with long shanks	6½	9	9½
Cams for stamp axles	7	9	9
Bucking plates	5½	8	8
Crushing rolls, cast in sand	6½	9	9
Ditto cast in chills	8	11	11
Mandrills	14	17	17
Ditto turned	20	23	23
Pillars	9	11½	12
Grate plates, open	7	9½	10
Ditto close	9	12	14
Open top water pipes	9	12	12
Iron borings	6	6	6
Ditto fine	7	7	7
Feed pole cases, with stuffing-boxes and glands, bored	21	26	28
Kibble moulds	8½	11	12
Shaft pullies	7	9½	10
Sampling plates	9	12	14
Angular bars	11	13	—
Frames for crushers	8	11	12
Anvil blocks	9	12	12
Chain guides	9	11	11
Stamp guides	11	13	13
Dressing plates and backs for grates, cast open	7	9½	10
Ditto ditto cast close	11	14	14
Shoes for drags	8	10½	10½
Hawse pipes	20	20	20
Plough chips	9	12	12
Barrow wheels	12	14	14
Furnaces, in green sand	9	12	13
Ditto loam	14	17	18
Wheal and pipe boxes ... per lb.	2d	—	2d
Hearth eyes ... per cwt.	10s	12s	13s
Block tin and ingot moulds	12	15	16
Hammers, anvil faces, and bits	11	13	13
Clock and sash weights	8	10	11
Grate castings	16	18	16–18
Paul plates	14	16	16

Weights adjusted, ¼ cwt., 6s.—½ cwt., 3s. 6d.—14 lbs., 2s. 3d.—7 lbs., 1s. 8d.—4 lbs., 1s. 4d.—2 lbs., 1s. 2d.—1 lb., 9d.—½ lb. 8d.

Single screw valve-boxes, complete, with brass valve, spill, and cross-bar—viz., 4-inch, 4l. 10s.—3½-inch, 3l. 15s.—3-inch, 3l. 3s.—2½-inch, 3l.—2-inch, 2l. 10s. each.

Boring working barrels ... per inch	5	—	5
Turning plunger-pole	7	—	7

WROUGHT-IRON.			
Plain cylindrical boilers, made of the best plates, and best rivet iron ... per cwt.	16s	22s	22s
Whim kibbles, hammered iron	16	21	21
Ditto rolled	14	19	19
Winze kibbles ... each	10½	—	10
Washing-tubs	5½	—	5½
Tapered rod-plates, hammered from scraps, six inches wide and under, in slabs ... per cwt.	13	16	16
Ditto 7 inches wide	14	17	17
Ditto 8 inches wide	16	19	19
Ditto 6 inches wide, and under-fitted in length, and holes bored, complete	17	20	20
Ditto with square holes cut out	18	21	21
Ditto 7 inches wide, holes bored, complete	18	21	21
Ditto ditto, square holes ditto	19	22	22
Ditto 8 inches wide, holes bored ditto	21	24	24
Ditto ditto, square holes ditto	22	25	25
Miners' shovels	30	34	34
Steel-point ditto	50	54	54
Valve iron	15	19	19
Faggotted iron, single	10	14	14
Ditto double	12	16	16
Axle arms and shear moulds	12	16	16
Grate plates, rough	15	19	19
Ditto middle hole cut	21	25	25
Ditto finished	25	29	29
Furnace bottoms	17	21	21
Flat thread-taps ... per lb.	4½d	—	4½d
Piston and air-pump rods, complete	8d–1s	—	8d–1s
Piston rings, turned	10d–1s	—	10d–1s
Loops	5d–8d	—	5d–8d
Outer connexion caps ... per cwt.	26s	—	26s
Chains, made of best scrap-iron, 11-16 and ¾-inch	22	27	27
Ditto ditto 9-16 and ½-inch	24	29	29
Ditto ditto 7-16-inch	25	30	30
Ditto ditto ⅜-inch	26	31	31

Chains made of S. C. iron, 3l. per ton less.

Best boiler plates—Shropshire	—	16	15½
Kibble plates, hammered	14	19	19
Ditto rolled	—	17	17

BRASS.			
The best composition metal plunger poles, and linings for air-pumps ... per lb.	1s 6d	—	1s 7d
Covers, buckets, &c., for ditto	1s 5d	—	1s 6d
Bearing and bucket brasses	11d	—	1s
Ditto ditto bored	1s 2d	—	1s 3d
Working barrels, bored	1s 5d	—	1s 6d
Steam-valves and seats	2s 3d	—	2s 3d
Ditto double beat	2s 6d	—	2s 6d

Large bushings—1843, 2s and upwards—1846, 2s. ditto.

Small brasses & bearings for parallel motion—1843, 1s 8d to 1s 10d—1846, 1s 8d to 1s 10d

MINE ACCIDENTS.

Silver Valley Mine.—Two men were killed on Thursday last by the falling in of the roof of the 10 fm. level, on the silver lode.

Pontop Colliery.—S. Atkinson was killed by a fall of coal in the south pit.

Toll End, Tipton.—T. Onions and his son were killed at Messrs. Bagnall's.

Gold's Green, West Bromwich.—As J. Leek was blasting and undermining a large piece of coal, it suddenly detached itself, fell on, and killed him.

Douclais.—T. Nicholas was killed by a fall of coal at the Brewhouse level.

Mosbro' Colliery.—A serious accident happened to J. Barker, miner, at this colliery, belonging to Mr. Wells: it appears he, with two others (one of them his brother), went about one o'clock in the morning to commence working; no one else being there, he let the others down, and afterwards "swarmed" the rope after them; but, it having been greased shortly before, he found it impossible to hold, and slid to the bottom with the greatest velocity—about 54 yards—almost before his companions could well clear the rope. One leg and foot was smashed, the other leg broken in two places, and his head and body very much crushed and bruised. The poor fellow had to remain in that state where he fell until other colliers came at five o'clock, when he was got out and conveyed home. One leg was amputated a little below the knee, and the other set the day following; and the poor fellow is now progressing as favourably as can possibly be expected.—*Derbyshire Chronicle.*

PROGRESS OF FRENCH MINING INDUSTRY.

[FROM OUR PARIS CORRESPONDENT.]

The statement, made some few weeks ago in one of my letters, to the effect, that several French capitalists had determined to make large investments in mining property in Belgium, is proved by a royal ordinance recently signed, and just inserted in the *Moniteur Belge*, which confers on a French company the lead, zinc, iron, and coal mines of Arnay, Flone, Hermalle sous Huy, Saint George's, and Jebay Bodegnee. The new company has taken the name of the "Grande Montagne," and nominated M. Gonin, the successor of the late Jacques Laffitte, its banker at Paris. Its shares may be said to be exclusively held by Frenchmen, scarcely half-a-dozen Belgians (if so many) having obtained any. The concessions to the company are 4800 metres in extent. It is prepared immediately to begin the working of its mines, and to push them on with all possible activity. From what is stated in Paris, the company believes that it has got a splendid affair in hand; and it calculates on seeing, in the course of a year or two, its shares with even as high a premium as those of the Vieille Montagne. For the disposal of its lead, zinc, iron, and coal, it counts only upon the French market—convinced that, with the enormous demand for, and scanty supply of, those articles in France, added to the facilities of railway communication, it can sell them better there than elsewhere.

Just now, there is a very general desire to invest money in Belgian mines. Go on the Bourse, and whisper in the ear of any speculator, that you have some Belgian mining project to bring under his notice, and he is immediately all attention—exactly as he would have been, six months ago, had you offered him ten thousand Northern Railway shares for nothing. As a proof of this, I may mention a circumstance within my own knowledge. About three months back, one of those mysterious individuals that one meets in *cafés*, and at *tables d'hôte*—who live God knows how, and heaven knows where—tried hard to persuade a friend of mine to subscribe for a few hundred pounds worth of shares in (what he called) a celebrated *slate* mine in Belgium; but on the precise whereabouts of which, he maintained a discreet silence, as he did also on the names of the bankers and directors. The thing, in fact, was such a transparent piece of swindling, that a man would have been an idiot to have allowed himself to be done. But the other day, my friend met this same slate mine projector, strutting in all the glory of a railway stag, in October last,—and he assured him, that he had got all his shares subscribed for, all his capital paid up, and safely deposited in a bank. The gullible public had snapped eagerly at a "mine in Belgium," apparently thinking it synonimous with a mine of gold. In a few weeks, perhaps, they will learn that their slate mine does not exist at all, and that all their money has vanished.

The strike in the mines of St. Etienne has virtually ceased. The greater part of the miners have already re-entered the pits, and the others will soon follow. The St. Etienne newspapers continue to declaim against the amalgamation of the different concessions in the hands of one company; but they bring forward no new circumstance in support of their views. They state, however, that the company, finding public opinion so strong against it, has determined on splitting itself into several sections, or independent companies. Nevertheless, they maintain that any such measure would be perfectly ineffective, and would only serve to throw dust in the eyes of the public. What would they have?

Some months back, the Prussian Government made a concession of coal, iron, lead, and other mines, in the neighbourhood of Aix-la-Chapelle, to a company, composed partly of German and partly of French capitalists. The capital of the company was to be 2,000,000 thalers, or 300,000*l.*, divided into 10,000 shares. The prospects of the company are so brilliant, that its shares, which have only lately been introduced to the Paris Bourse, are already at a very considerable premium. The fact of Frenchmen interesting themselves in a mining speculation in Germany, may be taken as a proof of what I have frequently stated, that mining investments are becoming more and more in favour every day. In fact, it appears not improbable that before long mining speculations will become as important, both from their multiplicity and the amount of capital engaged, as those in railways. By decisions of the Minister of Public Works recently given, a complete service of engineers for mines in Algiers has been organised. They will have the general superintendence and inspection of mines conceded, and will be charged to make further researches for new sources of mineral riches. From an official return, issued on Saturday, by the Customs Department, it appears that, in the first three months of the present year, the importations into France of coal were 4,055,222 metrical quintals arrived, of which duty was paid upon 3,911,211 quintals. The quantity in the first three months of 1845, were 2,900,957 metrical quintals arrived, and 2,700,793 acquitted. In 1844, they were 2,987,007 arrived, and 2,927,195 acquitted. It will be observed, that this year's importations present a very remarkable increase over those of last year, and the year preceding. Of cast-iron, the first three months of this year show 151,881 metrical quintals arrived, and 155,959 acquitted; in 1845, the quantities were 113,248 arrived, 118,957 acquitted; in 1844, 106,524 arrived, 117,650 acquitted—thus proving a very considerable increase. In lead, on the contrary, there is a decrease—in 1846, 38,170 metrical quintals arrived, 32,842 were acquitted; 1845, 41,933 arrived, 26,567 acquitted; 1844, 40,321 arrived, 31,096 acquitted. Zinc and copper also present remarkable decrease—the latter especially. By taking the importations of coal and cast-iron for the month of March alone, we shall find that they are considerably greater than the corresponding month of last year. Of coal, for instance, the month of March, this year, shows 1,458,062 metrical quintals arrived, 1,390,905 acquitted—whilst, in 1845, the numbers were 793,566, and 713,163. Cast-iron, in March, 1846, was 54,326 metrical quintals arrived, 51,143 acquitted; 1845, 28,799 arrived, 34,155 acquitted; The importations of 1845 were greater than those of any preceding year; and, as they are so far outstripped by those of the present year, we see clearly that, notwithstanding the extraordinary exertions she is making, and notwithstanding the extraordinarily high duties by which her ironmasters are protected, France is compelled to depend more and more upon the foreigner for her coal and iron; and there is every reason to believe, from the developments of her railway system, that her demands for coal and iron will increase every month.

Another week has elapsed, and there is nothing new with respect to the promised reduction of iron. Perhaps, when the Chamber shall have got rid of the railway bills of the Minister of Public Works, we shall hear something about it.

In railway matters, the only noticeable point is, that the Chamber of Deputies has adopted the first clause of the Bordeaux and Cette Railway Bill, authorising the concession of the line to the Company Espeleta. The clause, directing that an embranchment should be made to the town of Castres, was rejected. As to the Northern Railway, it is not yet opened,—nor does anybody seem to know exactly when it will be, but it cannot be long first.—*Paris, Tuesday, April* 28.

COPPER MINES IN ALGERIA.

We extract the following interesting particulars of the copper mines of Djebel Mouzaïa, on the Atlas—a spot now remarkable, also, as the "scene of several struggles between the French and Arabs"—from Capt. Kennedy's *Algeria and Tunis*:—"At the period of the capture of Algiers it was well known to the French, that certain districts of the Atlas, in the vicinity of Medeah, were rich in minerals; and that formerly copper had been worked successfully, although to no great extent, at the earlier period of the Turkish rule. The present mines were, however, discovered by the engineer officers, who, when surveying the country, found numerous fragments of ore in the beds of the mountain torrents, which led to further search, and thus to the discovery of the veins now working, as well as of the deserted galleries of the ancient mine. Specimens were sent to France to be analyzed; the ore was found to be rich, and a company was formed, who commenced their operations a year ago; but, owing to the difficulty of procuring labour, and the impediments incidental to a novel enterprise in this country, it is only for the last three months that the works have been properly carried on. The galleries, 22 in number, are driven into the side of a ravine, with a south-westerly exposure. As yet none of them have attained any great length, the longest being only 125 feet, and, being driven horizontally into the mountain, but little labour is requisite to extract the ore, which lies in a matrix of argil, the general direction of the veins being east and west. The ore is broken with hammers into small pieces, and sorted according to quality, all fragments containing a large proportion of earthy matter being rejected, as not of sufficient value to pay the expense of transport and smelting. The picked ore is then carried by mules and asses to Bleedah, from thence to Algiers, where it is shipped to France to be smelted. The ore is remarkably rich, some specimens possessing as much as 34 per cent. of copper, and the average yield of the ore imported into France is about 20 per cent. 160 men are employed, a large proportion of whom are soldiers, permitted by the authorities to labour in the mines, and who receive their extra pay from the company. Having visited these works, the superintendent now rode with me to the ancient mine, rather more than a mile distant, and on the other side of a steep ravine that separated two spurs of the mountain. It is held by the same company, who have purchased from the tribes the exclusive right to all the minerals in an extensive district, for a small sum, and have also had the purchase confirmed to them by the French Government. A small colony of 40 Germans now carry on the works, but hitherto the produce has not been equal to that of the other mines. The account current throughout the country is, that it was worked by the Spaniards or English, and as a proof, they show a rude cross of a large size, hewn in the rock, near a spring in the neighbourhood, and two smaller ones cut in the mine itself. It is, therefore, probable that the miners were Christian slaves; which is further borne out by the appearance of the works, and the traces of blasting. The borings are remarkable for their size, being three inches nine-tenths in diameter. The southern slope of the mountain seems to be one immense mass of minerals; antimony is abundantly disseminated with the copper; lead has been found in small quantities, and traces of silver discovered, but the ore that exists in the greatest abundance is iron, which, from the absence of coal, is useless; neither is there in this part of the Atlas sufficient wood to supply charcoal for a furnace at a reasonable cost. The afternoon had now cleared up, and from the entrance of the old gallery I had a magnificent view: above me rose the snow-clad summit of the Djebel Mouzaïa, 5200 feet above the level of the sea; at my feet lay the wild ravine; and around, mountain beyond mountain stretched away into the distance, until their bold outlines becoming gradually less and less distinct, melted into the faint forms of the clouds floating lightly on the horizon."

Law Intelligence.

THE IRON TRADE—REPUDIATION OF CONTRACT.

COURT OF EXCHEQUER—APRIL 30.

BAILEY AND OTHERS *v.* DICKER.—This was an action to recover damages for a breach of contract.—It appeared from the evidence of the plaintiffs' witnesses, that on the 1st of December a Mr. Short, a retired iron-broker, received instructions from the plaintiffs, Messrs. Baily, Brothers, and Co., iron merchants at Liverpool, to purchase for them 2000 tons of Scotch pig-iron at the price of 70s. a ton, payable in 7 or 14 days, or the like quantity for cash at 67s. 6d. Messrs. Short and Co. accordingly communicated with Messrs. Rickards and Co., of whom they purchased 2000 tons at 70s. Shortly after this bargain had been concluded one of the firm of Messrs. Rickards called upon Mr. Short and expressed their regret at having undertaken the sale, and added that he would be glad if he could buy the same quantity back again for them without loss. Short said he would try what he could do; and that, if he could get it back at the same price for a bill at four months, the interest upon that would pay the brokerage. Eventually Messrs. Rickards and Co. gave authority to the broker to make the purchase upon these terms. At a later period the defendant called on Mr. Short, and expressed a wish to sell a quantity of Scotch pig-iron, because he anticipated there would be a fall in the market; and that, if the price should go lower, he would have an opportunity of buying in again. Short, however, thought that the market would get up, and ultimately Short informed him that he was in a position to buy that quantity for a four months' bill for Messrs. Rickards and Co. The defendant asked Short if he would discount the bill for him if he agreed to the bargain, but that gentleman declined to do so on the ground that his house was not a discounting house. The defendant thereupon refused to make the sale for a payment by bill, saying that he should prefer selling for cash. Short upon this said he had a commission to buy 2000 tons at 67s. 6d. cash in 14 days. The defendant asked whether he would not make some advance upon the price; and on finding that no advance would be made, he agreed to make the sale upon the terms proposed. Before the contract was written out, the defendant said he was particularly anxious that no person should know of the transaction, particularly Messrs. Roberts, alluding to two gentlemen who were in the iron trade, and by whom he had been introduced to Short's firm. Short, in consequence, said that he was not accustomed to state the names of parties, and as the defendant had made the request specially, he would take care that neither buyer nor seller in this transaction should be known. Accordingly he gave instructions to one of his clerks to draw out the contract, omitting the names of both parties. This having been done, Short signed the contract, and handed it to the defendant. The contract was here put in and read, as follows:—

"*London, 1st December*, 1845.

"Sold for account of J. C. Dicker, Esq., 2000 tons of good merchantable Scotch pig-iron (one-half No. 1, and one-half No. 3), at 3*l.* 7*s.* 6*d.* per ton, delivered in a yard or yards at Glasgow, to be paid for in net cash, without discount, in London, within 14 days, in exchange for warrants. "SHORT AND MAHONEY."

By the post of that day Short and Co., forwarded a copy of the contract to the plaintiffs. On the 6th of that month the defendant called at their office, and expressed his regret to Short at the sale he had made through him to Messrs. Rickards and Co., on the 1st of the month, because the price, instead of having gone down, had advanced 7*s.* 6*d.* per ton. On hearing this, Short said the sale had not been made to Rickards and Co., and that they were not the parties for whom he had made the contract, and then reminded him that he had advised him not to sell at the time. After some further conversation, the defendant went away without having even then asked the names of the purchasers. On the 9th of December Short went to Morley's Hotel, where the defendant stopped when in London, for the purpose of arranging for the delivery of the warrants for the iron, and the payment of the money, but on his arrival he discovered that that gentleman had left town for Cheshire. The following day Short and Co. wrote to him in these terms:—

"The prompt on the 2000 tons pig-iron sold on the 1st inst., will become due on the 15th, and you can either send the warrants up to London, or if more convenient to you, you can deliver them to the buyers, Messrs. Bailey, Brothers, and Co., of Liverpool, who will pay you there. "Yours, "SHORT AND MAHONEY.

"P.S.—Should you wish to be paid for the iron at Liverpool, perhaps you will have the kindness to inform them, that they may not be sending the warrants up here. In either case, perhaps you will have the goodness to inform them."

Messrs. Short and Co. wrote by the same post to Messrs. Bailey and Co., stating that they had that day received 4000*l.* on their account, the proceeds of another transaction in iron, and asking whether they should forward the amount to them, or retain it in part payment to be made to Mr. Dicker (the defendant), on the 15th inst., for the 2000 tons, at 67*s.* 6*d.* Accordingly, on the 11th the plaintiffs wrote to the defendant to inform him that they should be fully prepared by the specified day in the contract to pay cash either at Liverpool or London for the 2000 tons of iron purchased on the 1st of December by Short and Mahoney. The defendant, in answer to this letter, wrote to the plaintiffs, and denied that he had entered into any such contract as that they had referred to. Before this, however, he had also written to Short and Co. to the following effect:—

"Gentlemen,—I was much surprised to learn from your agent, Mr. Short, on the 6th inst., that the sale of the 2000 tons of iron, of which you sent me the contract note, was not made to Mr. Rickards and Co., to whom alone I authorised a sale. I have, in consequence, to inform you, that I repudiate altogether the sale in question, and I request you to consider this a formal notice to that effect. As I consider the circumstances attending this transaction very irregular, I have to add, that, unless they are fully explained to my satisfaction, I shall be under the necessity of drawing conclusions very much to your prejudice as brokers."

On the receipt of this letter, Short and Co. instantly wrote a reply, condemning, in very strong terms, the repudiation of the sale, and denying that the authority had been to sell to Messrs. Rickards alone, and also that the transaction had been irregular. Mr. Short then went on to say, that, at the time the sale was made, it was of the greatest importance that the names of any sellers should not be known in the iron market, and that was one principal reason why the names of sellers were kept in the back ground.

Mr. Mahoney, the partner of the last witness, then proved, that on the 1st of December, the day the sale was made, the price was 67*s.* 6*d.*, and that on the 15th, the price was 77*s.* 6*d.* to 80*s.* The difference, therefore, between the two prices upon the 2000 tons, was 1000*l.*, taking the price at the lower figure.

The learned BARON left it to the jury to say, whether the evidence they had heard did not satisfy them that the contract had been made by the defendant. If it did, it was then for them to say what amount of damage the plaintiff had sustained by its breach. There could be no doubt the plaintiffs would be ready to make good the contract on their parts, because there had been a rise of 10*s.* a ton, and for that very reason it would seem the defendant had been anxious to repudiate the affair.—The jury returned a verdict for the plaintiff—damages, 1000*l.*

THE TALACRE COAL AND IRON COMPANY.

COURT OF QUEEN'S BENCH, DUBLIN.

HOWARD *v.* SHAW—JUDGMENT.—At the sitting of the court, the CHIEF JUSTICE delivered judgment in this case. It was an action of assumpsit brought for the recovery of the amount of two promissory notes made by the defendant and others, as directors of the Talacre Mining Company, to Lewis Levason, whose endorsee the plaintiff was. Payment of the notes was contested on the grounds of want of consideration, and that the company was a bubble, a scheme got up to defraud the public—the original founders, one of whom Levason was, having falsely represented the company to be in possession of valuable property in coal mines, &c., and so induced the defendant to become a shareholder and director. The deed of partnership of the company was dated in 1839, and it was represented that the sum of 20,000*l.* had been paid for the mines which the company was to work. The defendant was one of those who had purchased the property from Levason and others for 15,000*l.*; part of the money had been paid to Levason, leaving 15,000*l.* due. The question for the court was, did the defendant render himself liable for the amount of the notes, or was he imposed upon so as to relieve him from the payment of the sum. The court could not hold that he was not liable. It was perfectly plain that the defendant had thus, as a director, the means of making himself fully acquainted with all the circumstances of the company. After an inquiry into them, it was deliberately resolved that the demand of Levason should be satisfied by giving him promissory notes, signed by four of the directors. The defendant stated, that he was deceived in signing the notes, as he was led to believe that the company, and not the shareholders or directors individually, was liable for the amount; but the court could not admit the validity of that excuse, or that the defendant was deceived by Levason or others in the transactions which led to the execution of the notes. Levason was suing for the amount of his demand, and, on getting the notes, consented to give up the suit: that contract the defendant sought to violate by refusing to pay the notes; but, if he could succeed in that, he would only throw the whole debt on the others, who joined with him in the compromise with Levason. Under these circumstances, it could not be held that there was no consideration for the notes, or that they were obtained by Levason through any contrivance or fraud on his part. A court of equity alone could give a remedy for frauds such as those complained of in the formation of the company. A court of law could not do so; but was bound to enforce the deeds executed by the parties—these deeds not having been impeached. If Levason could maintain an action for the amount of the notes, there was nothing to prevent the plaintiff from suing; for it did not appear that he was concerned in the formation of the company, or that he was no *bonâ fide* holder of the notes, or had renewed any notice of the fraud complained of here. The learned judge read a number of cases in support of the views he put forward. Under all the circumstances, his opinion and that of the court was, that the exceptions should be allowed, and that there should be a *venire de novo*.

ABSTRACT OF PATENTS GRANTED IN APRIL.

[From Newton's *London Journal of Arts*.]

W. Spiby, Carrington, Nottingham, for improvements in the construction of furnaces used for heating water and other fluids.

F. C. Warlick, Deptford, for improvements in the manufacture of fuel.

J. Allingham, Dublin, and J. W. McGauley, of the same place, for certain improvements in steam-engines.

J. Hunt, Brixton, Surry, for improvements in the manufacture of soda.

W. T. Haycraft, Greenwich, for improvements in steam-engines.

C. May, Ipswich, Suffolk, for improvements in machinery for punching, rivetting, and shearing metal plates.

E. Galloway, Buckingham-street, Strand, for improvements in locomotive engines.

W. H. Bell, Edmondsley, near Chester-le-street, Durham, for improvements in working coal in coal mines.

A. P. Perceval, East Horsley, Surry, for improvements in communicating between places separated by water.

THE SALT MONOPOLY IN FRANCE.—We have in former Numbers stated the impost or tax upon salt, levied by the French Government, and throughout the continent, on this important article, not only as being prejudicial to the salubrious state of the population, but the advancement of agriculture and farming industry, by the high price it is charged by the Governments, who have the sole monopoly of the salt mines and springs in their own hands. Salt, after wheat, is the most requisite article, not only for private use, but the commercial prosperity of a country, especially where the fishing, and curing of fish and meat, are the chief means of giving employment to thousands of the hardy and industrious classes of the population. We have seen the benefits that the taking off the tax upon salt, imposed by Mr. Pitt, has done throughout the United Kingdom, not only by giving an impetus to the salt proprietors of Cheshire, Worcestershire, and other mineral counties, to work their mines; but the great export trade they now have to India, Hong Kong, China, and other parts of the globe, from Gloucester, Liverpool, and Bristol, annually increasing and enhancing the industry of this great commercial empire. The following is an extract from the French Government's official returns of the duties, or indirect taxes, levied during the first three months of 1846, compared with those of the same period in 1844 and 1845:—

	1846.	1845.	1844.
Tax, or duty, upon the consumption of salt within the radius of the customs	£447,480	£504,040	£454,680
Tax, or duty, upon the consumption of salt levied beyond the limits of the customs	132,280	117,160	115,560
Total	£579,760	£621,200	£580,240

The French Government has certainly reduced the tax upon salt this session, which was formerly 3d. per kilo. (or 2 lbs.), to 1½d.; but this is only confined to that intended for the feeding of cattle, and under very restrictive conditions, that it shall be mixed at the expense of the parties at their option, in the following proportions—viz., first, for every 10 lbs. of pure salt, five quarts of water, and 80 lbs. of common bran, or mixed with chaff; second, for 20 lbs.—10 quarts of water, 8 lbs. of meal, or oil cake, and 80 lbs. of bran, or mixed with chaff. This is certainly an advantage to the agriculturists. But the public at large are calling for a reduction of the tax, as not only being highly oppressive to their well-being, but the commercial prosperity of the country; but, more particularly, in the poorer classes and fishermen, for curing the returns of their arduous industry o'er the ocean. France is very rich in mineral and saline springs, having in the departments of the Pyrenees, 298; in the mountains of the centre, 265; in the Vosges, 78; the north-western districts, 64; the Alps, Jura, and Corsica, 45; Ardennes and the Hainault, 6; other springs, sulphur, carbonic acid, ferruginous, &c., 108—making a total of 864. The Chamber of Deputies has decided, that as all mineral springs, whether cold or hot, are a public benefit, and ought not to be dependent upon private individuals, many of whom are not able to improve them—it is much preferable that they should all be under the control of Government, after having indemnified the parties now holding them. It will be seen by the above, that the Government has not only the monopoly over the manufacture of salt, and all the salt springs throughout the kingdom; but will soon have it over all mineral springs, as it will have in railways, at the expiration of their leases, and all the mines from one end of the country to the other, the working parties being only nominal holders. Our contemporary, the *Moniteur Industriel*, has taken up the subject in a spirited manner, and of there being very little donbt that the Government will ultimately rescind this obnoxious impost, which has long met with general disapprobation throughout France. The price of rock salt, we perceive, is from 2s. 6d. to 3s. 6d. per cwt.; from 10d. to 1s. 3d. for bay salt from the departments of the west and south. The tax on each cwt. is 30 fr., or 1*l.* 4s. 2d.—that is to say, 10 times higher than the cost of its production—30 times higher on the salt of the west, and 60 on the salt of the south, which is equivalent to 1000, 3000, and 6000 per cent. Why should this enormous tax be imposed on an article which is as necessary to man as the air he breathes? Our contemporary makes the following appropriate remarks:—"Instead of advancing a step, we are retrograding, and this is a proof. It is well known that England has reduced, or abolished, nearly all the taxes, which weighed heavily on the common necessaries of life. This is an example which ought to be followed by all Governments—but see how we adopt it. Soda is a primitive material, and of the greatest importance to the chief portion of our industrious classes. It was thought that the Legislature would have done something towards advancing the industry of the country, by reducing, or repealing, the tax upon salt for the making of soda. But, on the contrary, what are our legislators and economists doing? they are absolutely increasing the obnoxious tax on salt for the making of soda—thereby preventing the development of our mineral industry. Napoleon, the establisher, however, of excise laws, understood in another light the interests of the country, which will be proved by the following dictate, or order, to the Council of State in 1809:—'The Council of State, considering that the manufacture of soda in France is highly favourable to a great number of different branches of trade, is of opinion that there is good reason to except the fabrication of soda from the duty on salt.' It would not be wise for the interest of the public treasury, nor even the consumers, to take this duty off at once, but by degrees, in four or five years, as all the benefit would then be derived by the extractors of salt in the Mediterranean, the Western Ocean, or Lorraine, where the most extensive depôts of rock salt exist. In the present position of our salt districts, when the weather has been very rainy, and the production of the saline marshes has not been abundant, the price of salt on the spot of extraction has doubled, and even tripled, in value. Only six months ago was paid at Cette 13*l.* 12s. 6d. the 2000 lbs. It will not be reduced until we have Members in the Chamber, who, instead of voting for the enriching of the Exchequer at the expense of the general welfare, mineral resources, and industry of the country, ought to devote their attention, and also that of the Government, to this important branch of national prosperity, by immediately bringing forward a bill in the House for the speedy reduction of the present oppressive tax. Were it not so, how would our budget have increased since 1830 by more than 500,000,000 fr. (or 20,000,000*l.* sterling), without finding the means of reducing the tax by one centime." The tax upon salt is highly prejudicial to the prosperity of every country, whether mining, commercial, or agricultural, which, we trust, the French, as well as the other Governments of the continent, will soon appreciate, by rescinding it, if not entirely, to a very great extent.

MINING IN AUSTRALIA.—We extract the following particulars, relative to the rate at which labour is paid, and the advantages held out to industrious men to emigrate to that thriving colony, from a statement, dated Adelaide, Dec. 6:—Miners are all so fully employed, that there is not "a spare hand" to be found; those engaged on what is called "owners' account," are paid from 30s. to 40s. per week, according to distance from town; whilst "tutwork" men and "tributers" have frequent opportunities of earning considerably more. Such is the want of regular mining labour at the northern mines, that Mr. Dutton engaged (a few days ago) 50 common labourers at 7s. per day. There is not an unemployed labourer to be got in the city, where many jobs are actually in abeyance for want of hands. Engineers, founders, tin-plate workers, and all other tradesmen and mechanics, are generally doing well. There is no lack of employ, and wages are liberal; but varying, of course, according to ability.

MINING IN BUCKFASTLEIGH.—The copper mines, which have been at work in this neighbourhood for some months, have, during the last week, assumed a very favourable aspect. At the Brook, a south lode, about 2 ft. big, has been quite unexpectedly discovered, which is producing good ore at a depth of 22 fms. The old Buckfastleigh Mine, which was partially worked, many years ago, by persons in this neighbourhood, under very improvident management, to a depth of 20 fms. below the adit level, and produced upwards of 20,000*l.* worth of copper, is now the property of London gentlemen, and ably conducted by experienced practical agents—the beneficial effect of which is already apparent. A discovery has been made within the last few days of a lode which the old company do not appear to have worked, which is said to be some feet wide, containing what is called a leader of solid ore 5 in. big. The present proprietors are likely to be enriched by the misconducted workings of the last company. The mines are on the estate of the Earl of Macclesfield.—*Western Lum.*

EGLINTON IRON-WORKS, KILWINNING.—At these works three furnaces will soon be finished, and the foundation of a fourth is preparing. The company have two coal-pits already yielding coal. The produce is "binged," to be ready for the furnaces when in blast. They have lately leased the minerals on the estate of Mountgreenan, in the same parish, which, it is believed, includes a good bed of hematite—a species of ironstone only recently noticed in this part of the country. The only parties in Kilwinning who have not benefitted by the operations going on at these iron-works appear to be the hamiloom weavers. The demand for house accommodation, caused by the influx of labourers and others, has tended to raise house-rents and the prices of the necessaries of life. This, with the diminished, and diminishing, means of the weavers, renders their domestic condition any thing but gratifying.—*Ayr Ob.*

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning, Twelve o'clock.

Bank Stock, 7 per Cent., 204½ 5½	Belgian Bonds, 4½ per Cents., 98
3 per Cent. Reduced Ann., 95¾ ¼ ¼	Dutch, 2½ per Cent., 59 ½
3 per Cent. Consols Ann., 96 6½	Brazilian, 5 per Cents., 82
3 per Cent. Annuities, —	Chilian, 6 per Cents., 95½
3½ per Cent. Ann., 96½ 7½	Mexican, 5 per Cents., 32½
Long Annuities, 10 ½	Spanish, 5 per Cents., 25
India Stock, 10½ per Cent., 261	Ditto Deferred, 15½ 16½
3 per Cent. Consols for Acc., 95¾ ¼ ½	Portuguese, 4 per Cents., 57
Exchequer Bills, 1000*l.*, 26 3 7 pm.	Russian, 5 per Cents., 110½

MINES.—Business in mining shares has not been very brisk during the week and prices have but little varied. In referring our readers to our share list, we beg to correct an error; into which we were led in altering the quotation of the Barristown Mine, from 30 to 22; such reduction was forwarded to us by a party in whom we place confidence for general correctness—although, in this instance, it is evident he was in error, as we are assured by the secretary, that no shares have changed hands since one in March, when the quotation which we now give was correct, and there is no reason whatever to expect any reduction—the prospects of the mine continuing of the same promising character as for some months past. There has been also a slight error in the quotation of the Wicklow Copper Company, which should never have been under 16½—we have had the price, 12½.

RAILWAYS.—There has been occasionally a considerable increase in railway share transactions, and, in some instances, an advance in prices. In the old lines shares have improved, and there is great attempts among scripholders to secure majorities for proceeding with their bills—this is too obvious to allow of doubt. This improvement in the market is to be attributed to the anticipated good which will arise from the working of the Government measure now proceeding through Parliament for the regulation of railway companies.

The preambles of the following lines have been declared proved:—Farnham and Alton branch of South-Western; Methley, Askern, and Oakenshaw branch of Wakefield, Pontefract, and Goole; Edinburgh and Northern—Strathearn division; Glasgow, Barrhead, and Neilston Direct—branches to Thornliebank, Houshill, and Hurlett; London and South-Western—clauses agreed to, with some amendments; Boston, Stamford, and Birmingham—Stamford and Wisbeach Lines; York and North Midland—north-western; Armagh, Dungannon, and Belfast Junction; Dundee and Perth; Stamannan and Burrowstownness; North Staffordshire—Harecastle and Sandbach, and Churnet Valley and Potteries; Wilsontown, Morningside, and Coltness—branches; Malton and Driffield.

MEETINGS.—Liverpool and Bury amalgamation—on Saturday last, at Liverpool, to consider the bill for incorporating the Liverpool and Bury Line with the Manchester and Leeds—Mr. Samuels proposed an amendment on the original motion, to the effect, that the bill be not proceeded with; the original motion, however, for proceeding with the bill, was carried by a majority of 2068 votes, representing 4275 shares.—Waterford, Wexford, Wicklow, and Dublin, on Saturday last, when a motion was carried, almost unanimously, that a committee of seven be appointed to prepare a petition to Parliament, praying for the immediate dissolution of the company.—St. Lawrence and Atlantic, on Monday, for taking measures for an immediate return of the deposits; Mr. Hagis was voted to the chair. It appeared that, out of 7000 shares allotted in England, in August last, only 2633 had been paid upon; the remainder had been cancelled by the provisional committee, and relieved from all further responsibility—the concurrence of the holders of 1800 out of these 2633 shares had been obtained; and a resolutionw as passed, stating the opinion of the meeting, that the provisional committee are bound to return the deposits—Mr. Bischoff undertaking to communicate to them that afternoon.—Manchester Midland and Great Grimsby, on Monday, when a resolution was passed, expressive of the confidence the shareholders entertained of the leading features and advantages of the undertaking, and their full reliance on the committee, and urging them to use their best efforts to carry it into operation.—Direct Birmingham and Leicester, on Wednesday, to receive a report from the deputation appointed to present a requisition to the directors, calling upon them to wind up the affairs. A letter was read from the secretary, stating that the directors had issued circulars to ascertain the feeling of the majority of the original shareholders, and some dissatisfaction was expressed at this proceeding, it being held that it ought to be a majority of the present scripholders. Resolutions, expressive of the wish of the meeting to wind up, were then passed. The directors have since obtained their returns, which, although they hitherto kept their intentions a profound secret, it is evident they intend to proceed with the bill, which has been read a second time, and the case is complete for committee. The expenses and liabilities to the present time have been upwards of 19,000*l.*, and they have a balance in hand of 31,918*l.* 2s. 1d.—Sheffield, Buxton, and Leek (Potteries and Crewe), on Wednesday, in consequence of the directors having issued a circular, to ascertain if the majority wished to wind up. After about an hour's discussion, it was resolved that the directors should be called upon to call a meeting for winding up the affairs.

MESSRS. LAMOND'S SALES.—TUESDAY.—Buckinghamshire (2*l.* 2s. pd.), 2*l.* 2s.; Northampton, Bedford, and Cambridge (2*l.* 2s.), 1*l.* 5s.; South and Midland (2*l.* 2s.), 1*l.* 1s. 6d.; Great Eastern and Western (2*l.* 10s.), 1*l.* 1s. 6d.; London and Manchester—Eastrick's (5*l.* 5s.), 3*l.* 11s.; Eastern Counties—York Extension (10s.), 2*l.* 6d.; Rugby and Huntingdon (2*l.*), 1*l.* 3s.; Manchester and Southampton (2*l.*), 2*l.*; London and York (2*l.* 10s.), 2*l.* 5s. 6d.; Ipswich, Norwich, and Yarmouth (2*l.*), 1*l.* 4s.; Tring, Reading, and Basingstoke (5*l.* 5s.), 2*l.* 8s.; Auxerre and La Roche (4*l.*), 2*l.* 10s.; Trent Valley Continuation and Holyhead Junction (2*l.* 12s. 6d.), 1*l.* 18s. 6d.; South Midland (2*l.* 2s.), 3*l.* 16s. 6d.; Welsh Midland (2*l.* 10s.), 1*l.* 7s. 6d.; Shrewsbury and Birmingham (2*l.* 10s.), 3*l.* 2s. 6d.; Goole and Doncaster (2*l.* 2s.), 2*l.* 11s.; Dunstable (5*l.* 5s.), 4*l.*

FRIDAY.—Notwithstanding this being a holiday at the Stock Exchange, the sale was very fully attended, and *bona fide* sales, to the extent of 4000 shares, were made:—Edinburgh and Perth (3*l.* pd.), 2*l.*; Reading, Guildford, and Reigate (2*l.* 2s.), 1*l.* 1s. 6d.; Cornwall and Devon Central (2*l.* 12s. 6d.), 1*l.* 10s. 6d.; York and Lancaster (2*l.* 12s. 6d.), 1*l.* 13s. 6d.; Ely and Huntingdon (7*l.* 10s.), 4*l.*; Somersetshire Midland (2*l.* 12s. 6d.), 1*l.* 2s.; Great Luxemburg (4*l.*), 1*l.* 19s. 6d.; London and Blackwall—new (2*l.* 10s.), 3*l.* 19s. 6d.; Guildford, Fareham, and Portsmouth (5*l.*), 4*l.*; London, Bristol, and South Wales (2*l.* 2s.), 1*l.*; Goole and Doncaster (2*l.* 2s.), 1*l.* 15s. 6d.; Mold Junction (2*l.* 15s.), 1*l.* 7s.; Dutch Rhenish (5*l.*), 6*l.* 5s. 6d.; Great Kent Atmospheric (2*l.* 10s.), 1*l.* 13. 6d.; Northampton, Bedford, and Cambridge (2*l.* 2s.), 1*l.* 5s.; Shrewsbury and Hereford (2*l.* 12s. 6d.), 1*l.* 13s.

LEEDS, THURSDAY.—There has been a decided improvement during the week in the tone of the share market—prices have gone much higher, and there is a decided disposition manifested to purchase into good stocks. Some of the good scrips, as Matlocks, North Staffords, Shrewsbury, and Birminghams, and Goole and Doncasters, have also participated in the advance. This improved state of things is generally attributable to the measures introduced by Sir R. Peel, which, though not of any immediate and practical operation, in the redistribution of the railway deposits, have given confidence in the future state of our monetary relations, and allayed that disposition to realise, even at any reduction, which has hitherto been the prevailing characteristic of the market. Now that the tide appears to have turned, it is to be hoped that prudence and caution, on the part of the operators, will prevent the reaction which must inevitably ensue, if too sudden and rapid a rise in prices is encouraged.

HULL, THURSDAY.—The improvement which began to show itself last week, is now, we may say, confirmed, so far as regards all good dividend-paying lines and first-class scrip. There are, indeed, signs of preferring these to the "winding-up" projects, which have lately been so attractive. Confidence is evidently returning—and this, if it continues, is worth a volume of statistics at any time. The Barnsley Junction is now completely *hors de combat* for this session. It seems generally thought that the directors will lose no time in returning the unexpended deposits to the scripholders. They could not be expected to command success, but this will make them popular, and be a sensible relief to our local share market. This stock advanced 3s. immediately the news of their defeat arrived.

IRISH STOCKS, RAILWAY SHARES, &c.—3 per Cent. Consols, 94½*l.*; 3½ per Cent. Stock, 96½*l.*; 3 per Ct. Reduced, —*l.*; 3½ per Cent. City Debentures, —*l.*; Bank Stk., —*l.*—Belfast and County Down Railway, 1*l.*; Cork and Passage, 1½*l.*; Great County Down, Belfast, Newry, &c., 1½*l.*; Great Southern and Western, 22½*l.*; Irish Great Western (Dublin to Galway), —*l.*; Dublin & Belfast Exten., 1*l.*; Dublin & Drogheda, 70*l.*; Dublin, Belfast, and Coleraine Junction, —*l.*; Dublin and Sandymount, 1*l.*; Irish North Midland, 4*l.*; Killarney Junction, 4*l.*; Newry, Warrenpoint, and Rostrevor, 2½*l.*; Dundalk and Enniskillen, —.; Dublin and Kingstown, —*l.*—Mining Company of Ireland, 12½*l.*; Wicklow Copper Mine, 16½*l.*—Hibernian Bank, 29½*l.*—Royal Bank, 12½*l.*

COAL MARKET, LONDON.

MONDAY.—Buddle's West Hartley 16 9—Carr's Hartley 17—Hastings' Hartley 17—Hedley's Hartley 14 6—Holywell Main 16—New Tanfield 14—Original Tanfield 13 6—Old Pontop 13 6—Ravensworth West Hartley 16 6—Tanfield Moor 16—West Hartley 17—West Wylam 14 6—Wylam 14 3—Wall's End Bell and Brown 17 3—Bewicke and Co. 17 6—Gosforth 17 3—Hebburn 16 6—Hilda 17—Hedley 17—Hotspur 16 6—Eden Main 17 6—Braddyll's Hetton 19—East Hetton 17 3—Hetton 19—Lambton 18 9—Pemberton 17—Richmund 17 9—Russell's Hetton 18 6—Shotton 18 3—Stewart's 19—Whitwell 17—Caradoc 18 9—Kellce 18 9—Trimdon 18 6—Thornley 17 9—Eden Hartlepool 15 6—South Durham 17 3—Tees 18 9—Killingworth 16 6.—Ships at market, 86.

WEDNESDAY.—Adair's Main 13 6—Buddle's West Hartley 16 6—Carr's Hartley 16 6—Clavering's Tanfield 13 6—Chester Main 15 3—Hedley's Hartley 14—Holywell Main 16—Old Pontop 13 6—Taylor's West Hartley 16—Tanfield Moor 16—West Wylam 14 6 Wylam 14—Wall's End Bewicke and Co. 17 6—Channell 16—Killingworth 17—Riddell's 17—Wreckington 13—Eden Main 17 6—Belmont 18—Braddyll's Hetton 19—Haswell 19 3—Hetton 19—Houghhall 16 6—Lambton 18 9—Pemberton 17—Russell's Hetton 18 6—Shotton 18 3—Stewart's 19—Whitwell 17—Caradoc 18 9—Cassop 18 3—Finchale 16 9—Hartlepool 19—Heugh Hall 17 6—Kellce 18 9—Trimdon 18 6—Cowndon Tees 17 6—Eden Hartlepool 15 6—South Durham 17 3—Tees 18 9—Derwentwater Hartley 15 6—Haig Moor 16 6.—Ships at market, 91; sold, 65; unsold, 26.

FRIDAY.—New Tanfield 14—Pontop Windsor 15—Wylam 14—Wall's End Wreckington 13 6—Eden Main 17 6—Braddyll's Hetton 18 6—East Hetton 17—Hetton 19—Pemberton 17—Stewart's 19—Whitwell 17—Adelaide 18 6—Eden Hartlepool 15 6—Whitworth Coke 26 6.—Ships at market, 53; sold, 27; unsold, 26.

ENGLISH COAL AT CONSTANTINOPLE.—A correspondent of the *Morning Herald*, writing from Constantinople, under date 7th April inst., says—"We have a complete glut of English coal here, of which there must be a stock equal to two years' consumption. Sales are, consequently, made at a severe loss—say at 16s. per ton; whilst the freight itself was higher, sinking the cost altogether. People may say it might be warehoused; but the Turks have an idea it is liable to spontaneous combustion, and there are very few places where it is allowed to be put."

RAILWAY SHARE LIST.

RAILWAYS.	Paid	Closing pr. last week.	Closing pr. last night.
Aberdeen	£10	3	4½
Amber, Nottingham, Boston, and Erewash Junction	7½	—	—
Armagh, Coleraine, and Portrush—25*l.* shares	1½	—	—
Birmingham and Gloucester—100*l* shares	100	125	125
Birmingham and Oxford Junction—20*l* shares	2	1½	—
Bristol and Exeter—100*l* shares	70	82	85
Bristol and Gloucester—50*l* per share	30	50	—
Caledonian—50*l* per share	5	6½	7½
Cambridge and Lincoln—25*l* shares	1½	—	—
Chelmsford and Bury	1½	—	—
Chester and Holyhead—50*l* shares	15	21½	22½
Cork and Killarney—50*l* shares	2½	—	—
Cork and Waterford—25*l.* shares	1½	¾	—
Cornwall—50*l* shares	5	—	—
Derby, Uttoxeter, and Stafford	2½	—	—
Direct Northern—50*l* shares	2½	1½	2
Direct Manchester (Remington's)—20*l* shares	2½	¾	1
Ditto Rastrick's	5½	3½	3½
Dublin and Belfast Junction—50*l* shares	10	5½	—
Dublin, Belfast, and Coleraine—50*l* shares	2½	—	—
Dublin and Galway—50*l* shares	4	2½	2½
Dundalk and Enniskillen—50*l* shares	2½	—	—
Eastern Counties—25*l* shares	14*l* 16*s*	23½	24
East Lincolnshire	1½	—	1½
Edinburgh and Glasgow—50*l* shares	50	72½	74
Edinburgh and Perth	3	2	—
Exeter, Yeovil, and Dorchester—50*l* shares	2½	1½	—
Goole and Doncaster—20*l* shares	42*s*	¾ dis.	¾
Grand Junction—100*l* shares	100	—	—
Grand Union (Nottingham and Lynn)	1½	—	¾
Great Grimsby and Sheffield—50*l.* shares	5	—	—
Great Southern and Western (Ireland)—50*l.* shares	15	22½	25½
Great North of England—100*l* shares	100	212	215
Great Western—100*l* shares	80	147	155
Guildford, Faruham, and Portsmouth—50*l.* shares	5	—	—
Hull and Selby—50*l* shares	50	100½	101½
Isle of Axholme	2½	—	—
Lancaster and Carlisle—50*l* shares	25	—	58½
Leeds and Carlisle	2½	—	1
Leicester and Birmingham—20*l* shares	22*s*	—	¼ dis.
Leicester and Bedford—20*l* shares	22*s*	¼ dis.	¼ dis.
Leicester and Tamworth—20*l* shares	42*s*	1½ dis.	¼ dis.
Liverpool and Leeds Direct—50*l* shares	2½	2½	—
Liverpool, Manchester, and Newcastle Junction	1½	1½	1½
London and Birmingham	stock.	225	226
London and Birmingham Extension—25*l* shares	1½	—	—
London and Blackwall	Av. 16*l* 13*s* 4*d*	8	8½
London and Brighton—50*l* shares	50	64½	66
London and Croydon	Av. 13*l* 15*s* 9*d*	22½	23½
London and Greenwich	Av. 12*l* 15*s* 4*d*	—	—
London and South Western	Av. 41*l* 6*s* 10*d*	79	82½
London and York—50*l* shares	2½	1½	2½
London, Warwick, and Kidderminster—50*l* shares	2½	—	—
London, Salisbury, and Yeovil—50*l* shares	2½	—	—
Londonderry and Coleraine—50*l* shares	2½	—	4
Londonderry and Enniskillen—50*l* shares	5	—	—
Lynn and Ely—25*l.* shares	5	6½	—
Lynn and Dereham—25*l* shares	5	6	6½
Manchester and Leeds—100*l* shares	82	121	132
Manchester and Birmingham—40*l* shares	40	78	82
Manchester, Buxton, and Matlock—20*l* shares	42*s*	par	¼ pm.
Manchester and Southampton	9	1½	2
Midland	Stock	147	157
Ditto Birmingham and Derby	Stock	118½	125
Midland Great Western (Irish)—50*l* shares	2½	3½	—
Newcastle and Berwick—25*l* shares	10	18½	21
Newcastle and Carlisle—100*l* shares	100	—	—
Newcastle and Darlington Junction—25*l* shares	25	45½	45½
Ditto New (Brandling)—25*l* shares	20	43½	45
Newport and Abergavenny	2½	—	—
Newry and Enniskillen—50*l.* shares	2½	—	—
Newark, Sheffield, and Boston—25*l* shares	2½	1½	1½
North British—25*l* shares	17½	26	28
North Devon	2	—	—
Northern and Eastern—50*l* shares	45	70	71½
North Kent and Direct Dover—50*l* shares	2½	1½	1½
North Staffordshire—20*l* shares	42*s*	2½ pm.	3½ pm.
North Wales—25*l* shares	3½	¼	—
Norwich and Brandon—20*l* shares	18	25	26½
Northampton, Banbury, and Cheltenham	2	—	1½
Oxford, Worcester, and Wolverhampton	12½	8½	9
Perth and Inverness	2½	1½	1½
Portsmouth Direct—50*l* shares	3½	2½	4½
Preston and Wyre—50*l* shares	50	34½	—
Richmond—20*l* shares	5	—	—
Rugby and Huntingdon—20*l* shares	2	—	—
Scottish Central—25*l* shares	7½	13½	15½
Scottish Midland—25*l* shares	5	6	7
Sheffield and Manchester—100*l* shares	100	—	—
Shrewsbury and Birmingham	2½	2½	3½
Somersetshire Midland	2½	—	—
South Devon—50*l* shares	25	3½	—
South Eastern and Dover	Av. 33*l* 2*s* 4*d*	37½	38½
South Midland—20*l* shares	42*s*	par	1½
South Wales—50*l* shares	5	1½	2½
Staines and Richmond—20*l* shares	1	—	—
Trent Valley—20*l* shares	5	—	—
Trent Valley and Holyhead Junction—20*l* shares	2½	—	1½
Vale of Neath	2	1	1½
Waterford and Kilkenny—20*l.* shares	3	—	—
Welsh Midland	2½	1½	1½
Wilts, Somerset, and Weymouth—50*l* shares	2½	2½	—
Yarmouth and Norwich—20*l.* shares	20	—	28½
York and Carlisle	2½	1½	—
York and North Midland—50*l* shares	50	97	—
Ditto Selby—50*l* shares	30	71	75

FOREIGN RAILWAYS.

Boulogne and Amiens—20*l* shares	10	11½	12½
Bordeaux and Toulouse and Cette (Mackenzie)—20*l* shares	2	—	—
Bordeaux, Toulouse, and Cette (Espalete)—20*l.* shares	2	2½	2½
Central of Spain—20*l* shares	2	—	¼
Dutch Rhenish—20*l* shares	5	6½	6½
East Indian	¼	¼	¼
Great Northern of France (constituted)	5	15½	15½
Great Western Bengal	¼	—	—
Great Western Canada—22½*l.* shares	3½	—	4
Jamaica and South Midland Junction—20*l* shares	1	—	—
Jamaica North Midland	1	—	—
Louvaine and Jemappe—20*l* shares	4	1½	1½
Lyons and Avignon—20*l* shares	2	2	—
Luxembourg	4	1½	2½
Namur and Liege—20*l* shares	4	1½	2
Orleans and Vierzon—20*l* shares	10	16½	17
Orleans and Bordeaux—20*l* shares	6	11	11½
Paris and St. Quentin—20*l* per share	2	—	—
Paris and Orleans—20*l* shares	20	—	48½
Paris and Rouen—20*l* shares	20	40	—
Rouen and Havre—20*l* shares	18	30½	30½
Sambre and Meuse—20*l* shares	6	5	5½
Strasburg and Basle—14*l* shares	14	—	—
West Flanders	4	2	2½

* Prices obtained from country brokers—no business doing in the London market.

RAILWAY TRAFFIC RETURNS.

Name of Railway.	Lgth. Rway.	Present actual cost.	Last Div.	Traffic Returns. 1846	Traffic Returns. 1845
Arbroath and Forfar	15	£140,782	3½ *p.c.*	—	£158
Chester and Birkenhead	15	589,632	2½	549 1 9	609
Dublin and Drogheda	32	631,258	4	730 6 2	739
Dublin and Kingstown	6	349,736	9	1064 2 3	—
Dundee and Arbroath	17	153,598	6	277 1 1½	260
Durham and Sunderland	19	302,116	2	535 7 10	634
E. Counties & North. & East.	124½	4,690,325	5	8276 19 2	4696
Edinburgh and Glasgow	46	1,686,926	6	3317 0 7	2856
Glasgow, Paisley, and Ayr	51	1,104,773	6	1976 18 2	1664
Glasgow, Paisley, & Greenock	23	806,134	2	876 7 0	847
Grand Junction Company *	119	2,597,317	10	—	9193
Gravesend and Rochester	7	85,000	—	206 3 10	141
Great North of England	45	1,296,196	6	—	1905
Great Western	220	8,179,980	8	20181 5 9	16563
Hartlepool	—	—	—	1054 1 3	—
London and Birmingham†	176	7,417,217	10	37327 19 9	18842
London and Blackwall	4	1,078,851	1½	826 1 7	1020
London and Brighton	69	2,653,673	7	4551 12 2	3792
London and Croydon	10	842,592	5½	1413 15 6	1175
London and South-Western	93	2,620,724	10½	7010 5 8	6150
Manchester and Birmingham	31	2,197,585	6	4367 1 9	3760
Manchester & Leeds	51	3,972,869	8	6302 0 11	5955
Manchester, Bolton, & Bury	10	842,725	6½	1073 6 5	926
Midland Company	179	6,636,105	6	15905 0 11	11192
Newcastle and Carlisle	65	1,187,385	5	1857 2 7	1385
Newcastle and Darlington	22½	1,272,031	9	2757 17 2	1173
Newcastle and North Shields	7	346,869	5	422 13 7	362
Norfolk	59	573,818	5	1203 16 0	228
North Union, Bolton &c.‡	32	1,060,551	6½	—	1448
Preston and Wyre	22	432,014	2	607 8 0	449
Sheffield and Manchester	19	1,313,225	2½	1584 0 11	721
South-Eastern and Dover‡	103	4,284,994	3½	6830 17 9	4482
Taff Vale	30	648,348	5	1108 8 3	926
Ulster	25	358,353	3½	648 4 2	557
Yarmouth and Norwich	20½	250,037	5	—	238
York and North Midland	53	1,632,859	10	5176 5 1	2433
Paris and Orleans	82	2,082,916	8	6589 0 9	6015
Paris and Rouen	84	1,995,306	9	5093 9 0	5230

* The traffic return of this company is now included in the London and Birmingham.
† Including the Grand Junction Company. ‡ Including the Greenwich line.
§ Included in the Manchester and Leeds. ‖ Included in Eastern Counties.

PRICES OF MINING SHARES.

Shares	BRITISH MINES. Company.	Paid.	Price.
235	Andrew and Nangiles	25½	50
1000	Barristown	4½	30
4000	Bedford	2½	5
128	Besore Lead Mine	—	35
320	Birch Tor Tin Mine	10½	12
8000	Blaenavon	50	40
100	Botallack	175	300
120	Brewer	—	25
10000	British Iron, New, regis.	10	18½
—	Ditto ditto, scrip	10	19
128	Budnick Consols	—	30
100	Bwich Cwmerfin	20	200
1000	Callington	19	30
256	Caradon Consols	45	55
256	Caradon Copper Mine	9½	8
256	Caradon Mines	4½	36
256	Caradon United	24	25
256	Caradon Wh. Hooper	12	8
1000	Carn Brea	15	130
114	Charlestown	—	240
236	Chypraze	—	20
1900	Combmartin	5½	4½
128	Comfort	—	40
5000	Con. Tretoil Mining Ass.	3½	2½
128	Condurrow	41	50
2560	Cook's Kitchen	—	6
1000	Copper Bottom	1	5
3200	Cornubian Lead Co.	3	—
1024	Cosheen	4½	25
240	Craddock Moor	9	30
128	Creeg Braws	120	60
500	Cubert Mine	10	30
1024	Devon & Courtney Con.	2	4
1000	Dhurode	2	5
186	Dolcoath	—	80
10000	Durham County Coal	45	9
128	East Pool	5	40
9000	East Tamar Consols	1½	3½
—	East Wheal Albert	1	3
256	East Wheal Alfred	6½	80
94	East Wheal Crofty	—	450
256	East Wheal Kitty	¼	¼
128	East Wheal Rose	50	1200
123	East Wheal Seton	2½	16
512	Fowey Consols	—	80
20000	Galvanised Iron Co.	10	10
10300	Gen. Mining Co. for Irel.	½	½
1000	Godolphin	—	35
256	Gonamena	10	125
128	Gover	23	200
244	Grambler & St. Aubyn	—	28
100	Great Consols	1000	400
256	Great Calestick Moors	—	12
2560	Great Mitchel Consols	—	2
100	Grogwinion	5	20
1000	Gumnis Lake	1½	3
128	Halienbeagle	—	50
1000	Hanson	5	3
1000	Harrowbarrow Old Mine	2½	3
1000	Harrowbarrow Consols	2½	2
800	Hawkmoor	3	6½
6000	Heigniton Down Con.	1	2
256	Herodsfoot	14	20
10000	Hibernian	12½	1
1000	Holmbush	14	25
256	Ivy Tor	1½	2½
1200	Kirkcudbrightshire	1½	½
2048	Lamerhoe Wh. Maria	2½	6
128	Lanarth & Penstruthal	—	150
2048	Lanivet Consols	2	5½
900	Larkholes	1	3
160	Levant	—	150
1000	Lewis	12	3
128	Ludcott	3	3
2800	Marke Valley	10	4
20000	Mining Co. of Ireland	7	12½
1000	Nant-A'r-Nelle	2	2½
200	Nanterrow Consols	10½	14
128	New East Crowndale	7½	7½
128	North Fowey Consols	10	25
100	North Pool	11	50
70	North Roskear	10½	440
256	North Treburget	2½	4
100	North United	41	20
128	North Wh. Providence	2½	10
256	North Wheal Rose	26½	35
15000	Northern Coal Co.	23	2
600	Old Delabole Slate Co.	25	45
128	Par Consols	—	500
256	Penhallow Moor	15	5
100	Penrhiw	30	65
128	Pen-y-Cefn Mine	50	55
1280	Perran St. George Un.	13	20
512	Plymouth Wh. Yeoland	1½	3½
10000	Rhymney Iron	50	33 4
256	Rose Consols	10	7
1000	Rosewall Hill	1	3
1024	Roscarrock	2½	2
2500	Silver Valley	2	2½
256	Sourton Consols	3½	5
128	South Caradon	5	460
260	South St. George	9½	16
200	South Harvannah	23	25
800	South Towan	10	1½
256	South Trelawney	8½	17
128	South Yeoland	16½	28½
128	South Wheal Basset	—	200
124	South Wh. Francis	—	100
1034	South Wh. Maria	—	2½
10000	Southern & Western, Irish	1	2

Shares	BRITISH MINES—*continued.* Company.	Paid.	Price.
256	South Wheal Rose	2	3
256	St. Austell Consols	6	25
1000	Stray Park	43	21
9600	Tamar Consols	3	5½
6000	Tincroft	7	14
256	Ting Tang	67	25
128	Tokenbury	124	58
1024	Trelawney Consols	1½	1
5000	Treleigh Consols	6	3½
256	Trenow Consols	—	170
96	Tresavean	10	250
120	Trethellan	5	50
120	Treviskey and Barrier	61	130
128	Trewavas	—	30
128	Trewellard	12	25½
4000	United Hills	5	4½
100	United Mines	300	900
128	West Basset	10	20
256	West Caradon	20	340
128	West Cargoll	2	15
512	West Fowey Consols	40	35
—	West Kekewich Consols	—	3½
256	Wheal Kekewich	4	15
256	West Providence	—	10
200	West Seton	—	50
120	West Trethellan	5	37½
256	West United Hills	1½	5
256	West Wh. Friendship	3	10
3845	West Wheal Jewel	11	2½
2560	West Wh. Maria	½	3½
2560	West Wh. Mitchell	—	2
256	West Wheal Sheppard	—	10
256	West Wheal Tolgus	21½	21½
256	West Wheal Treasury	12	12
240	Westerlake	3	3
6000	Wicklow Copper	5	16½
256	Wheal Albert	10	12
128	Wheal Agland	13	10
256	Wheal Allen	½	4
368	Wheal Anderton	10½	11½
128	Wheal Ann	—	50
256	Wheal Blencowe	—	20
256	Wheal Boscastle	3½	9
236	Wheal Byon	½	3
128	Wheal Catherine	5½	12
256	Wh. Cleveland	2½	5
68	Wheal Clifford	—	450
1024	Wheal Concord	3½	3½
256	Wheal Fortescue	3	18
384	Wheal Franco	22	42
256	Wheal Gill	17½	25
1000	Wheal Harriet	1	—
128	Wheal Henry	—	5
109	Wheal Hope (Zennor)	23	25
256	Wheal Hope	7	1½
256	Wheal Jane	6	35
265	Wheal Kendall	11½	5
1024	Wheal Maria	1	700
4000	Wheal Martha Consols	4	4
256	Wh. Mary Ann	5	75
1024	Wh. Mary (Calstock)	2½	1½
256	Wheal Mary Consols	15	14
256	Wh. Mexico	3	6
256	Wheal Norris	9	10
128	Wheal Penrose	—	5
128	Wheal Pollard	11½	30
128	Wheal Prospect	4	9
128	Wheal Providence	4	—
128	Wheal Reeth	1	60
256	Wheal Robins	13	5
128	Wheal Rose	40	20
256	Wheal Salusbury	13	5
512	Wheal Sarah	2½	5
99	Wheal Seton	150	840
256	Wheal Sisters	25½	50
128	Wheal St. Cleer	21½	35
260	Wheal Trelawney	7½	165
256	Wheal Treveuna	3½	4
256	Wheal Trewennan	—	10
128	Wheal Veuland	12½	20
256	Wheal Victoria	2	6
127	Wheal Virgin	—	20
1024	Wheal Walter	2½	4
256	Wheal Williams	4	10

Shares	FOREIGN MINES. Company.	Paid.	Price.
5000	Alten Mining Company	14½	14
15000	Asturian Mining Co.	6	3
10000	Anglo-Mexican Co.	100	3
3374	Ditto Subscription	25	4
2000	Botanos	150	4½
12000	Ditto Scrip	15	5
10000	Brazilian Imperial	21	4½
12000	Cobre Copper Co.	40	25
8500	Colombian Co. regis.	55	4½
5000	Ditto Scrip	—	
10000	Copiapo Mining Co	14	2
20000	General Mining Ass'n.	20	1¾
5051	Mexican Company	59	6
12000	Mocanbas & Coraes	25	8½
29320	Rl. del Monte, regis.	28½	3½
	Ditto unregistered		3½
	Ditto Red Debentures	—	19
	Ditto Black ditto	—	17
	Ditto Loan Notes	150	117
7000	Royal Santiago	10	16½
2000	Pachuca Mines	3	3½
11000	St. John del Rey	15	9½
43174	United Mexican	28½	4½

*** *We should feel greatly obliged by agents, or others interested, furnishing us with such corrections for our Share List as we may not have received through our usual channels of information—our object being, to present as accurate a list of prices as can be obtained—to procure which, we solicit the aid of correspondents in general.*

LATEST CURRENT PRICES OF METALS.

LONDON, MAY 1, 1845.

	£ s.	£ s. d.		£ s.	£ s. d.
Iron—Bar *a*. Wales *ton*	8 0—	8 5 0	Copper—Ordin. sheets, *lb.*	0 0—	0 0 10½
„ „ London	9 0—	9 5 0	„ bottoms	0 0—	0 0 11½
Nail rods „	0 0—	10 0 0	Tin—Com. blocks *g*...*cwt.*	4 10—	4 11 0
Hoop (Staf.) „	11 0—	11 5 0	„ bars	4 11—	4 12 0
Sheet „ „	0 0—	12 5 0	Refined	4 13—	4 14 0
Bars „ „	10 10—	11 0 0	Straits *h*	3 18..	3 19 0
Welsh cold-blast foundry pig *b*	4 5—	5 0 0	Banca	0 0—	4 0 0
Scotch pig *b*, Clyde	3 5—	3 6 0	Tin Plates—Ch., IC *i, box*	1 10—	1 12 0
Rails	10 0—	10 5 0	„ IX	1 16—	1 18 0
Russian, CCND *c*.	0 0—	——	Coke, IC	0 0—	1 5 0
„ PSI	0 0—	——	„ IX	0 0—	1 11 0
„ Gourieff	14 5—14	10 0	Lead—Sheet *k* *ton*	0 0—20	0 0
„ Archangel	0 0—13	12 6	Pig, refined	0 0—21	0 0
Swedish *d*, on the spot	0 0—11	10 0	„ common	0 0—19	0 0
„ Steel, fagt.	0 0—15	5 0	„ Spanish, in bd.	0 0—	——
„ „ kegs *e*	0 0—14	10 0	„ American	0 0—	——
Copper—Tile *f*	0 0—92	0 0	Spelter—(Cake) *l*	0 0—18	10 0
Tough cake	0 0—93	0 0	Zinc—(Sheet) *m* export.	0 0—30	0 0
Best selected	0 0—96	0 0	Quicksilver *n* *lb.*	0 0—	0 4 6
			Refined Metal *ton*	0 0—	——

[*From our Correspondent.*]

Iron.—The business in Welsh and Staffordshire iron during the past month has been very moderate, and the prices have yielded 5s. to 10s. per ton. Scotch pig declined in the course of the month from 70s. to 62s. 6d. per ton; and a few parcels were sold at 60s. free on board at Glasgow; but it has rallied, owing to orders from the continent, and the month closed at 65s. to 66s., at which many orders have been given.

Copper continues as last quoted, with demand limited.

Tin has declined considerably since the date of our last, English having receded from 99s. to 91s. for blocks, with still a downward tendency; and foreign from 84s. to 78s. for Straits, and 86s. to 80s. for Banca. The fall in English has not improved the demand, but a considerable quantity of foreign moved off at the reduced rates, and Straits is now held at 79s., though Banca can be bought at 80s.

Tin Plates.—Charcoals are as last quoted, with a very dull demand. Cokes have given way 1s. per box, and consequently many parcels moved off: from the heavy stocks, and the appearance of the iron market, tin plates are not expected to rally at present.

Lead has been dull of demand lately, and the price has yielded 5s. to 10s. per ton, although several parcels were sold for the northern markets. We have no arrivals of American, nor any Spanish of soft quality.

Spelter has fallen 20s. per ton since 2d ult. A considerable business has been done at 18*l.* 15s. and 18*l.* 10s., which latter is now the quotation; the present stock is 3550 tons.

[*Communicated by Messrs. Whitcombe and Barton, Old Broad-street.*]

There has been an improved demand for all descriptions of English iron during the last ten days—prices remain the same. In Scotch considerable business has been done for immediate shipment; also, for delivery in May, June, and July, and there are still buyers at 65s., cash, and 67s. 6d., bills, at three to four months. Foreign iron dull of sale. —In foreign steel sales are reported at 14*l.* to 14*l.* 5s.—English copper continues steady, as also English lead.—English tin flat, and a further decline in price expected. Several sales of spelter have taken place at 18*l.* 10s.—In other metals no alteration.

GLASGOW PIG-IRON TRADE.

April 24.—We have had very little business during the week in pig-iron—buyers, although numerous, are not disposed to give full rates, and holders, being few, are stiff. Sales have been effected during the week at 62s. 6d. to 64s. for No. 3; 64s. to 65s. for proportions of Nos.; and 66s. to 70s. for all No. 1—the latter figure being for favourite shipping brands, which are very scarce.—*National.*

April 25.—(*From a Correspondent.*)—We have symptoms of improvement this week; and I can state, on the best authority, that the stock has been reduced fully 30,000 tons since the beginning of the year, while the threatening aspect of the underground workmen is likely not only to preclude an increase on, but to reduce, the present production.

IMPORTATION OF COAL AND METALS INTO FRANCE.

The following is from the official returns of the importations into France during the first quarter of the present year, showing the quantities (in metrical quintals) arrived and consumed, and the duties received:—

	Arrived.	*Consumed.*	*Duties.*
Coal	4,055,222	3,911,211	884,835 fr.
Cast-iron (unwrought	131,881	155,959	867,302
Copper (first fusion)	7,608	8,245	17,486
Lead (in pigs)	38,170	32,842	182,306
Tin (unwrought)	1,424	1,709	3,034
Zinc (first fusion)	18,775	19,340	11,542

[The metrical quintal is 221½ English lbs.]

The whole return for merchandise generally, shows a total of 36,278,442 fr. —being 1,942,595 fr. more than in the corresponding quarter of 1845, and 2,269,787 fr. more than in that of 1844.

Coal Miner's Strike.—On Monday last, a strike of miners took place in the neighbourhood of Wednesbury, at the following works:—Messrs. Lloyd, Foster, and Co.; Addenbroke and Sons; Bills and Mills; Bagnall and Sons; and Mr. Jones—in consequence of the expressed intention of the masters to reduce wages 3d. per day. A meeting was held on Tuesday, when it appeared there were about 1500 men on strike. The speakers spoke in strong terms on the injustice of the proposed reduction; and several applied to Messrs. Lloyd, Foster, and Co., who declared they should not in future give more than 3s. 9d. per day: so the matter rests at present.—The letters from Birmingham of last night (Friday), announce the miners to be still on strike, and that they seem determined not to resume work upon the terms proposed by the masters.

Perran Wheal Virgin Mine.—Quite a sensation was produced at Truro, on Wednesday morning, in consequence of a discovery that was made on the previous evening at this mine. It appears that the mining operations here had hitherto been confined to an east and west lode; but the present improvement is the discovery of a north and south lode, six feet big, which, within two feet of the surface, shows a fine course of lead. Some stones of nearly one cwt. each were broken by the captain, and forthwith forwarded to the principal adventurers at Truro early on Wednesday morning; several of whom, however, were not sufficiently wide awake to prevent their being duped by crafty jobbers. We have seen some of the lumps of lead at the Miners' Bank, and at Mr. Tregellas's office. An assay has been made, and the produce found to be 75 per cent. for lead, and 23½ ozs. of silver in the ton of lead.

Royal Institution.—The anniversary meeting was held yesterday (Friday) afternoon, Lord Prudhoe, F.R.S., in the chair. The report stated, that the receipts had been greater by 275*l.* 9s. 4d., and the expenses less by 79*l.* 4s. than those of the preceding year; whilst the general receipts of 1845, had exceeded the disbursements occasioned by every possible requirement of the institution, by no less a sum than 908*l.* 13s. With this in addition to a balance of 738*l.* 13s. from the previous year, they had discharged all debts (342*l.* 15s.), invested 395*l.* in the funds, and advanced, on account of the library, a further sum of 200*l.*, leaving a balance in reserve of 708*l.* 13s. The Friday evening meetings continued to keep up their high character of usefulness coupled with popularity. The total receipts of the year were 3012*l.* 8s. 10d., and expenses, 2103*l.* 15s. 10d.

COPPER ORES.

Sampled April 15, and Sold at Andrew's Hotel, Redruth, April 30, 1846.

Mines.	*Tons.*	*Price.*
United Mines	128	£4 7 6
ditto	125	4 6 6
ditto	120	5 7 6
ditto	112	3 1 6
ditto	105	4 7 6
ditto	104	5 4 0
ditto	100	5 6 6
ditto	75	3 16 0
ditto	74	2 12 6
ditto	73	3 15 6
ditto	72	4 7 6
ditto	71	3 13 6
ditto	70	4 7 6
ditto	69	5 10 6
ditto	69	3 16 6
ditto	59	3 16 0
ditto	54	4 19 6
ditto	26	3 16 0
South Caradon	94	4 12 6
ditto	93	4 17 0
South Caradon	90	£5 7 6
ditto	69	9 12 6
ditto	60	4 12 0
ditto	43	4 16 6
ditto	21	7 10 6
Treleigh Consols	97	8 7 6
ditto	93	4 1 0
Creeg Braws	94	4 8 6
ditto	23	6 4 6
ditto	19	4 1 6
Par Consols	70	4 5 6
ditto	61	4 15 0
Wh. Sisters	61	4 5 6
ditto	28	7 6 0
Penstruthal	21	4 8 6
ditto	11	5 18 0
ditto	4	25 0 6
N. Downs	16	4 13 0
Pembroke	1	6 15 0

TOTAL PRODUCE.

United Mines	1497	£6462	1 6	Wh. Sisters	89	£ 465 3 6
South Caradon	470	2075	3 0	Penstruthal	36	257 18 6
Treleigh Consols	190	1189	0 0	N. Downs	16	74 8 0
Creeg Braws	136	636	11 0	Pembroke	1	6 15 0
Par Consols	131	589	0 0			

Average standard, 1077.3s.—Average produce, 7.—Average price per ton, 4*l.* 15s. 0d.—Quantity of ore, 2566 tons.—Quantity of fine copper, 181 tons 3 cwts.—Amount of money, 12,356*l.* 1s. 6d.—Average standard of last sale, 937. 14s. 0d.—Average produce ditto, 9½.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal	345	£1718 2 6
English Copper	151	748 15 6
Vivian and Sons	439	1906 0 6
Freeman and Co.	214	747 2 0
Grenfell and Sons	500	2104 7 0
Crown Copper	46½	188 6 6
Sims, Willyams, and Co.	335	2033 2 6
Williams, Foster, and Co.	535½	2910 5 0
Total tons	2566	£12,356 1 6

Copper ores for sale on Thursday next, at Tyack's Hotel, Camborne.—Mines and Parcels.—North Roskear 952—Consolidated Mines 737—Tincroft 502—Fowey Consols 366—South Roskear 287—South Wheal Basset 221—Wheal Harriet 177—Dolcoath 135—East Wheal Crofty 123—Wheal Vyvyan 86—South Wheal Francis 63—Wheal Clifford 52—Tretoll 45—Hanson Mines 31—Marfley's Ore 30—Wheal Bucketts 28—Jorey's Ore 20—North Pool 16—Martin's Ore 15—Charlestown United Mines 12.—Total, 3898 tons.

Copper ores for sale on Thursday week, at Andrew's Hotel, Redruth.—Mines and Parcels.—Carn Brea Mines 758—Par Consols 360—Wheal Prosper 342—United Hills 317—Levant 258—Trenow Consols 221—Hallenbeagle 190—Botallack 120—West Wheal Treasury 84—Harvey's Dross 82—West Wheal Jewel 66—Ting Tang Consols 50—Carn Perran 48—Wheal Buller 47—Redruth Consols 21—North Wheal Basset 19—Wh. Catherine 4—Wheal Sally 2.—Total, 2979 tons.

COPPER ORES

Sampled April 7, and Sold at Swansea, April 29, 1846.

Mines.	*Tons.*	*Prod.*	*Stand.*	*Price.*
Knockmahon	114	8¼	101¼	£6 9 6
ditto	110	7¼	101½	5 7 0
ditto	97	6½	105½	4 6 6
ditto	95	10¾	97½	8 2 0
ditto	68	6½	103¼	4 14 6
ditto	63	6¾	103½	4 12 6
ditto	30	6¾	106	4 10 0
ditto	16	10¾	94½	7 18 0
Cobre	100	13¾	87½	9 17 6
ditto	98	13¾	87½	9 17 6
ditto	96	13¾	85¼	9 12 6
ditto	89	13¾	86	9 13 6
Cobre	81	13¾	85	£9 10 6
ditto	80	13¾	85½	9 12 6
Berehaven	94	10	95¼	7 6 0
Llandidno	86	9	99¾	6 13 6
Copiapo	84	25¼	82½	18 13 0
Holden Slag	27	3	126	1 10 6
ditto	11	4¾	109	2 10 6
Hafodyllan	21	5¼	109¼	3 10 0
ditto	6	3¾	123	1 18 0
ditto	4	10¾	91½	7 12 0
Sicilian	7	15¾	86	11 8 0
Molland	3	6¼	103	4 1 0

TOTAL PRODUCE.

Knockmahon	593	£3389	15 0	Holden's Slag	38	£ 68 19 0
Cobre	544	5281	17 0	Hafodyllan	31	115 6 0
Berehaven	94	686	4 0	Sicilian	7	79 16 0
Llandidno	86	574	1 0	Molland	3	12 3 0
Copiapo	84	1566	12 0			

Total tons, 1480.—Total amount, £11,774 13s. 0d.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

English Copper Company	360	£3700 4 0
Freeman and Co.	51	208 10 0
P. Grenfell and Sons	464	4511 17 0
Sims, Willyams, Nevill, Druce, and Co.	42	99 7 0
Williams, Foster, and Co.	563	3254 15 0
Totals	tons 1480	£11,774 13 0

Copper ores for sale, May 13.—Berehaven 125, ditto 109, ditto 106, ditto 104, ditto 87—Cobre 95, ditto, 90, ditto 80, ditto 78, ditto 62, ditto 54, ditto 7—Ballymurtagh 58, ditto 57, ditto 50, ditto 40, ditto 5—Cuba 80, ditto 65, ditto 48—Knockmahon 78, ditto 38—Pensylvania 32, ditto 30, ditto 21—Chili 21, ditto 19, ditto 12, ditto 5, ditto 4—Sampson's Ore 50—Tigrony 36—Aberdovey 19, ditto 2, ditto 1—French Slag 17—Dovey 2—Total 1785 tons.

BLACK TIN

Sold on the 20th of April, 1846.

Mines.	*Tons.*	*Price.*	*Amount.*	*Purchasers.*
Chypraze	3½	£53 0 0	£185 10 0	Bolitho; Williams.
ditto	2½	50 0 0	112 10 0	Bolitho and Co.
ditto	1½	47 12 6	83 6 10	Ditto.

Total tons, 7½.—Amount of money, £381 6s. 10d.

Sold on the 25th of April, 1846.

Mine.	*Tons*	*Price.*	*Amount.*	*Purchaser.*
Wh. Beam	55	£51 5 0	£2818 15 0	Williams & Co.
ditto	19	48 12 6	923 17 6	Bolitho and Co.
ditto	10	47 0 0	470 0 0	Ditto
ditto	34	45 10 0	1547 0 0	Ditto
ditto	11	51 2 6	562 7 6	Ditto
ditto	38	49 2 6	1375 10 0	Bolitho; Williams.
ditto	25	46 10 0	1162 10 0	Williams & Co.

Total, 182 tons.—Amount of Money, 8860*l.* 0s. 0d.

THAMES TUNNEL COMPANY.

The number of passengers who passed through the Tunnel in the week ending April 25, was 20,036; amount of money, £83 9s. 10d.

NOTICES TO CORRESPONDENTS.

The first of the SERIES of PAPERS on the METALLURGICAL TREATMENT of ORES will be published in our next Journal.

In our list of sales of coal, in last Journal, appears Blaendare Welsh steam coal; we are informed, by a correspondent, that no coal being shipped under that name, it must have been that known as Davis's Blaengwawr steam coal. The name, as we gave it, was copied from the official list; but, of course, we readily adopt the correction of our correspondent, for whose communication we feel obliged.

"A Subscriber" (Bilston).—We cannot insert the communication respecting the occurrence at Mr. Kirby's, Millfields—our correspondent should address the police authorities of the district.

THE MINING JOURNAL
And Atmospheric Railway Gazette.

LONDON, MAY 2, 1846.

We call attention to an article in another column, being a correct statement of the prices of mining materials, on the 1st May, 1843, 1st April, 1845, and 20th April, 1846, which shows, at a glance, the variation which has taken place; and it will be seen that, while a considerable increase in price was obtained in 1845 over 1843, the advance in materials, either of iron or brass, in 1846, over the preceding year, is comparatively small. Much has been said of the evidence of a certain engineer, before a committee of the House of Commons lately, in which he asserted that the cost of construction of railways would now be 50 per cent. over last year; but from this table (although, for mining utensils, it will form a criterion) it appears that no description of iron implements have much risen in value, except rails; and, as timber and labour are no dearer than last year, it appears to us, that had that gentleman stated 10 per cent. increase, instead of 50, he would have been much nearer the truth. We have taken considerable pains to render the table correct, and which, we have no doubt, will prove valuable for reference.

We have had an opportunity of inspecting the accounts of the Devonshire Great Consolidated Mining Company for the 12 months ending the 31st March, prepared for presentation at the meeting, to be held on Monday next, and which show the proceeds of a mining speculation, scarcely, if ever, before equalled. It appears from this document, that the proceeds from the mines during the past year amounted to 13,292 tons of copper ore, and which produced the almost unprecedented sum of 110,250*l.* 10s. 11d. The total money paid on the shares of these prolific mines has been only 1*l.* per share on 1024 shares, amounting to 1024*l.*; while dividends have been paid during the past year to the amount of 71*l.* per share, or 72,704*l.*; there also being a reserve fund already amounting to 2620*l.*, with balance at the bankers of 2303*l.* 8s. 4d., Exchequer Bills for 2500*l.* in the strong box, and nearly 20,000*l.* worth of ores at grass. This is a most prosperous position, and which certainly no other existing mining company can boast. We look forward with interest to the proceedings at the meeting, which we shall print fully in our next Journal.

In another column, will be found an opinion, obtained by the directors of the National Brazilian Association, from G. Cochrane, Esq., the barrister-at-law, of 77, Chancery-lane, on a case submitted to him—whether the holders of unstamped shares are entitled to rank as shareholders? We have, on several occasions, adverted to the improved prospects of this association,—and have held, that those shareholders, who virtually abandoned the company and the mine when in adversity, have now no right whatever, either in a moral and common-sense view of the subject, or in law or equity, to come in for a portion of that which was obtained by the perseverance and the expenditure of others. We are happy to see that we are supported, in the opinion we have so often expressed, by gentlemen of long legal experience, and by the highest authorities in the law, on occasions of giving judgment in mining cases precisely similar. We think the holders of these shares will do well to pause before they take any legal measures for compelling the directors to acknowledge them as shareholders; as, if there is any principle of equity in our courts, followed out by successive judges—if the laws are made to protect those individuals, who, in a spirit of enterprise beneficial to the nation at large, still persevere in the prosecution of large speculative commercial undertakings, although deserted by a large portion of their originally co-adventurers—if the advancement of capital for prosecuting those most uncertain of all ventures, mining researches, is to secure to those only who have risked it the returns which may arise, and not for them to be pounced upon by others, under a spurious pretext that they *once* subscribed to the undertaking, but which at the time was unproductive—we think there can be but one opinion as to what the result will be—viz., expense, disappointment, and unavailing regret.

In our advertising columns will be found a report of the Blaenavon Iron and Coal Company, submitted to the shareholders at the annual meeting, held on the 24th ult., and which presents another proof of the present prosperous position of the iron manufacture, brought about principally by the introduction and vast extension of the railway system in England and on the continent. Our readers, more particularly those connected with the iron works of the kingdom, will call to mind, that for years this company was not only not realising any profit, but every annual investigation gave evidence of continued and increasing losses, to an extent which even prevented them from writing off 10 per cent. from the preliminary expenses and suspense account—a plan which had been adopted on the establishment of the company. It was with much pleasure we noticed the return to profits in 1845, in November of which year a dividend of 1*l.* per share, amounting to 8000*l.*, was declared. It will be seen, on reference to the report, that the affairs of the company are now in a prosperous and promising condition—the entire profit for the year having been 34,659*l.* 5s. 9d., enabling the directors to write off 30 per cent. from the preliminary expenses, and 5403*l.* 0s. 1d. from profit and loss; and to declare a further dividend of 20s. per share, payable in July next. Although the shareholders have, at various times, given authority to the directors to raise funds for the completion of new works, which would bring a considerable portion of the company's resources into profitable working, the state of the trade has been such, that all their attempts to raise the necessary capital has failed. It is, therefore, now proposed to issue debentures, at 5 per cent. per annum, for five years, convertible, if so desired by the holders, within that period, into shares at par; or to borrow a further sum on mortgage, whichever plan may appear most advisable; and, in the present highly prosperous state of the company, we should expect there could be no difficulty in carrying out a measure, whereby the company will be able to avail itself to the fullest extent of the great resources they have at command, and to realise those profitable returns, which the present demand for every description of iron offers. There is one feature in the report, which must be gratifying to every philanthropist—viz., the vote which was unanimously come to, awarding 100*l.* to an infant school for the children of the workmen—a decision which reflects the highest credit on the company, and is well worthy of imitation.

Our Gallic contemporary, the *Moniteur Industriel*, with its usual virulence against the progress making in the iron trade of this country, and the great demand for British iron in France for railways and shipbuilding, has made a severe attack against the *economistes* of the Chamber of Deputies—the merchants and railway directors—at the idea of wishing the Government to reduce the duty on foreign iron, as it would be the ruination of the forgemasters. He argues, and that very justly, that the French Government ought to give every encouragement it can to the making of iron in the fur-

naces of that country, so as to compete with this and other states; but it cannot do more than it is doing, as France has not the materials, or means, to produce a sufficient quantity to meet the demand that is making for iron, rails, &c. According to his calculation, the price of rails in England at present is 12*l.* per ton; Belgium, 13*l.*; Germany, 17*l.* 10s.; and in France, 16*l.* 10s.—so that, if she is to have her iron either from England or Belgium, it will be just as dear, especially should many of her high furnaces be extinguished. Next year, he states, the production of their iron and cast metal will amount to at least 8,000,000*l.* sterling. "Is France deficient in iron ore, wood, coal, and all the primitive materials necessary for the making of iron? Certainly not—it is superior in quality, and may, perhaps, exceed in abundance, the iron ores of England and Belgium; and notwithstanding the bad legislation of our forrestrial laws and administration, we have more wood fuel than England and Belgium,—and not only is coal cheaper at the pit's mouth in France than in England and Belgium, but her rich coal mines are more considerable, and far surpass those of either country." We should like to ask our contemporary, how it is that, if France is so rich in coal mines, and in iron ore—as he, no doubt, has suddenly discovered—that the Government of France is obliged annually to enter into very extensive contracts for the supply of Newcastle coal, for the use of her steam navy, that of the country not being fit for the purpose? We might say the same with respect to cast iron for shipbuilding and other constructions, when they must invariably come to England for their good materiel.

Throughout the long pending controversy, as to the best railway line for the county of Cornwall, we have ever given the preference, because upon investigation a just preference appeared due, to a Central project. It has never been a consideration with us from whom the scheme emanated, or who were the parties promoting it. Our one care has been to give our spontaneous advocacy—and, we will add, our earnest support—to that line which embodied in a new sense the old substance of the transcendental maxim, the greatest good of the greatest number; by whoever submitted, we have given our assistance to that line which appeared able to afford the greatest amount of transit accommodation to the entire district. The recent efforts of the county prove, that an efficient Central line is as attainable as a Coast line, under the most favourable circumstances, could possibly be. The experience, also, of the last few months—of the last few weeks even—has proved to a demonstration, that the capital and influence of the Great Western, whose is the lordship of the Coast line, could avail nothing against a Central project in the hands, and under the management, of persons competent to the direction of a circle of efforts, including some of considerable complication and detail. If it were otherwise—if a Central line was in any of its elements impracticable—we are not such optimists as to refuse a line that could be had, for the sake of a better one that could not. We would then take the next best—however circular, however zig-zag, the circumstances of the case, and the topographical character of the route, might render it. But the county is driven to no such alternative—there are two substantive Central projects waiting its adoption, either of which exceeds the Plymouth project, in the public convenience, in the trading and commercial advantages conferred upon the district, as much as in height Olympus exceeds a mole-hill. We need not, for the fiftieth time, go at large into the particulars of a Central and of a Coast project, but repeat here the substance of the Parliamentary evidence, that, upon the whole, the line to Plymouth is slow, circular, and dangerous, and that a Central route through the county to Exeter is safe, rapid, and direct. Apart from every engineering and social advantage connected with this or that line of railway, nothing is more apparent than the impoliey of *indirect* lines—it is like charity, which, if a man have not, he may be said to have nothing at all. If a line is nearly perfect in all the other properties of a railway, but largely wants directness, that want is fatal. Such an ambulative line will be shortly and necessarily merged in one having less of that capital defect adhering to it. As it is, you must take the Plymouth line, with its melancholy speed, its funeral pace, of 15 miles an hour, with the increased distance by that route to Exeter,—or, the county must make up its mind to fight over again—and win it too—the battle for a Central project. Among other things, which a line taking a merely sectional or Coast route to Plymouth must leave undone, would be this—that it would leave grievously unpromoted the intercommunication of the towns. It would also, from the same primary vice, minister inefficiently to the transit of ores, timber, coals, and mining materials—so characteristic of, and so essential to, the district. These, with the entire merchandise of the county, would be carried away from their true route, like a stream that has broken its banks, and a serious amount of time unnecessarily consumed, and money wantonly spent, would be amongst the penalties of a departure from the natural traffic route of the district. A coast railway will undoubtedly be tantamount to the permanent imposition of a tax on the trading interests of the county. But, perhaps, the greatest injury arising out of the adoption of a Coast line would be this—that the whole district would thereby be placed at an increased distance (of two or three hours in time) from the metropolis; its indirection, and the low speed obtainable on it, making up this additional period. In estimating the merits of these lines relatively, the great importance of connecting by a direct line the port of Falmouth with London, must not be overlooked. This port lying low down in the Channel, and reposing on the margin of the Atlantic, is, from its position and capacity, better adapted than any other on the southern sea-board of the kingdom, for a rendezvous and a roadstead to the merchant navy of England traversing the deep waters of that sea. It is also the ancient mail port of the kingdom, and lost that privilege and distinction as soon as Southampton became linked to the metropolis by a direct railway. There is no reason to doubt—nay, the Government would as a duty consent to the restoration of the mails to Falmouth, when the friends of Falmouth have done for it, what the friends of the Hampshire port have so well accomplished—namely, buckled it to the metropolis by the belt of a well considered and a well ordered railway. The haven itself is one of the most accessable and most secure of any that fringe the sea wall of this well harboured island, and the larger part of these advantages, its several features of national utility, will be thrown to the winds, by accepting, as part of the highway to town, the circular and slow route through Plymouth.

Shut up, therefore, both in reference to its present and prospective interests, as the county manifestly is, to a Central line, the public will choose between the most costly and onerous undertaking, in seeking which they have already failed before Parliament, and another, a far more easy and economical project, whose capabilities have not yet been examined, and whose fortune before Parliament has never yet been tryed. An expenditure of 1,000,000*l.*, instead of 3,000,000*l.*, and the creation by the lesser outlay of a line in every essential property as good as the more costly one, are points demanding the maturest consideration; but in this particular, as it is a question of means to an end, and the end being in each case nearly the same, we will not now intrude our own veiws in respect of it. There is one consideration, however, that must largely interfere with the judgment of the county as to this branch of the subject—namely, that a bill for the Cornwall line *may* be obtained this session; it is at present proceeding somewhat too swimingly to justify any very ardent hopes of its failure. Should it succeed, any scheme providing for the restoration of the Devon and Cornwall Line, as recently before the public, would be, in the largest sense of the word, preposterous; for the whole resources of the district would be far short of the necessary sustentation of two trunk lines. In that case, a line to Exeter, projected from the trunk of the Cornwall Line, near St. Austell, would be all that the county absolutely needed—all that it ought to seek—and all that the Legislature, upon the most plausible and *exparte* representation, would, in any likelihood, be disposed to grant. It is true, that the present functional inactivity of Government, together with the contingency of a dissolution, both Parliamentary and Ministerial, largely looming up in the proximate horizon, may render these considerations of less immediate urgency than if the machine of Government were working with its ordinary vigour; but nothing can long suspend—nothing can eventually one whit abate—the materiality of this railway question, to the important districts affected by its decision.

We direct the attention of our readers to an article in another column, on the working of the zinc, lead, iron, and coal mines of Stolberg, in the vicinity of Aix-la-Chapelle, which proves the rapid progress making in mining operations in Germany, more particularly zinc, which is daily becoming an article of the greatest demand all over the continent, in this country, and every part of the globe, as it can be applied to so many useful purposes, in the galvanising of iron, sheathing of vessels, covering for railway stations, building of houses for the colonies, and other articles, too numerous to define. By the report of the directors of the Zinc Company of the Vieille Montagne, with which we have been favoured, it will be seen, that it is a very prosperous undertaking, and will be more so in a few years hence, yielding a good profit to those adventurers who have been fortunate enough to obtain shares in it. The quantity of zinc expected to be obtained this year from the ore extracted from the mines is estimated by the directors to yield, on an average, 6500 tons of metal, which, after having been flattened, will meet with an immediate sale in Belgium and France, where the demand for zinc is increasing daily. One great quality of the zinc of the Vieille Montagne is, that it is pure and very malleable, and can be worked easily when cold. The ore is so rich, that the cost price is under 9*l.* per ton to the company, after all expenses, which, at the present market price, renders a most lucrative return.

In our present Number will be found some observations and statistical details on the monopoly, with respect to the salt trade in France—a subject which we have animadverted on upon various occasions, as being most oppressive to an important branch of mineral industry, as well as to commercial enterprise, and one which is closely connected with the health of a population. The question of the reduction of the tax upon salt has, for several years, been brought forward at intervals by various members in the Chamber of Deputies. The different Ministers of Finance have repeatedly promised a reduction; but the returns from this monopoly in the hands of the Government contributes so extensively to the Exchequer, that each successive Minister has hitherto found it to his interest to withhold the promised reduction—though they must be aware, that the time is approaching, when all oppressive direct taxation on the necessaries of life must be abandoned; while, from the extensive and rich saliferous beds, which exist in various parts of the kingdom, it is pretty certain that a very large reduction of duty would produce an increased revenue, from the impetus which it would give to the working of salt mines. The subject was warmly discussed last week in the Chamber of Deputies, and a bill was passed, reducing the tax from 1*l.* 4s. 6d. to 8s. 4d. per metrical quintal—this reduction, which, however tardily wrung from the Government, as it is not to come into operation until 1st January, 1848, is still something; it will reduce the price of salt 2d. per lb., and is at least a step towards further concessions; still the Government retain the monopoly of the trade, and the present measure will do but little to induce proprietors of mines to work them with any spirit. We trust the question will continue to be agitated until an entire free trade in so important an article is secured.

THE IRON TRADE IN FRANCE.—The last accounts from St. Dizier represent the manufacturers of white cast metal as being without stock on hand, and that purchasers had been glad to enter into arrangements with them for a long term, at 7*l.* 8s. 4d. per ton, delivered at St. Dizier—a very considerable sale having been effected at that price, deliverable between November, 1846, and July, 1847. The reports from Paris announce, that in consequence of the scanty arrival of iron in their markets, the prices were fully sustained, particularly flattened iron, made by wood, which is quoted at 15*l.* 12s. 6d. to 16*l.* per ton, of the first quality. A meeting of ironmasters had been held, to carry the classification of the qualities to 2s. 6d. The half rock iron keeps up its price, 14*l.* 16s. to 15*l.* 4s., in consequence of the scarcity of assortment. Rough cast and moulded metals are always in favour. It is generally supposed, that in consequence of the principal forgemasters being bound by heavy contracts of iron and cast metal, shortly deliverable, the prices will, in all probability, be fully maintained during the present year. There is a considerable scarcity of iron at the markets of St. Dizier and Paris, and the ironmasters are not able to meet the increasing demands making for railways, and other purposes, although numerous furnaces have been recently put in full blast. A great quantity of iron is now imported from this country and Belgium, notwithstanding the duty, as the railway contractors are nearly at a stand still for *materiel*.

GENERAL MINING ASSOCIATION.—In the *Mining Journal* of the 18th ult., we offered some remarks on the state of mining in Nova Scotia, with regard more particularly to the mines worked by the General Mining Association; and in the last Number appears a letter on the subject, from a correspondent, who complains that, although the coal mines must be extremely profitable, not one farthing has been returned to the proprietors. Notwithstanding it is now seven or eight years since the last general meeting was held, call after call has been made on the shareholders, who appear to have no voice whatever in the proceedings, or control over the funds advanced. Several applications have been made to us, as to who are the directors,—and why are not the shareholders called together, following the example of the Bolanos, Real del Monte, Imperial Brazilian, United Mexican, and other large mining undertakings. We are reminded, by a correspondent, that the last meeting was a very stormy one—the shareholders present indulging in well-merited animadversions on the conduct of the directors. The close system still pursued by them makes it but too apparent that they dread another encounter with the ill-treated co-proprietors, and savours strongly of the pursuance of a system which will not bear investigation. Although half a million sterling has been advanced by the shareholders, and they are making immense sales of coals, not one sixpence has yet been returned upon so large a capital, nor have the holders any knowledge how their money is expended, or in what position they are placed with regard to their mining property. It would appear that the prospects of the association, with regard to the coal mines in Nova Scotia, are of a most advantageous character, were they followed up by men of spirit, who would make the most of the circumstances of the times. The district is fertile in mineral wealth; and notwithstanding the present inquiry, recommended by the committee of the House of Assembly, the association is able, were its energies properly directed, to work sufficient coal, and other minerals, to pay a good dividend to the proprietors. It does appear to us a most extraordinary anomaly, that shareholders should be compelled to pay calls upon calls, made by an irresponsible body of men, who refuse or delay to call meetings, to inform them in what position they stand, or to give the least insight into the state of the accounts, or in what way the funds are disposed of. If such a state of things really does exist—and we are assured by several shareholders that such is the case—we can only wonder they do not call a public meeting on the subject, and pass such resolutions as would induce, or even compel, the directors to throw some light upon their proceedings.

ELECTRIC LIGHT.—We have much pleasure in announcing, that we shall be enabled to publish, in next week's *Mining Journal*, the specification, with engravings, of King's Patent Electric Light; and also an article, containing facts and observations relating to this interesting subject, showing the novelty and importance of the invention.

It is said that a French mechanic has invented a system of signal lights by the means of coloured glasses, which, according to their position at the mast-head, indicate the direction of vessels at sea.

MINING IN IRELAND.—It is with much gratification we are enabled to state, that the present position and prospects of the Wicklow Copper Mining Company are highly encouraging, particularly the Ballymurtagh Mine, which has now produced handsome profits for many years; and from the liberal scale of tutwork carried on, in opening on the lodes, in advance of the ore taken away, there is every reason to expect the present state of productiveness to last for many years. The general appearance of the copper ore in the bottoms is exceedingly good; and in the 110 fm. level, going west, with whole ground above it to surface, they are extending the level on a very valuable body of fine ore, with a strong mining force; and those works are followed up in a very spirited manner, by sinking shafts and driving cross-cuts, fully to develope this level. The monthly raisings of copper ore have, for some time past, averaged 400 tons per month; and iron pyrites, for the extraction of sulphur, amount to from 1000 to 1200 tons per month. As the amount of copper ore from this mine, in the Ticketing papers from Swansea, does not average near the above sum, it is necessary to state, that a large portion of the ore is sold by private contract. The sinking of two new perpendicular shafts has been lately completed from grass, which take the respective lodes at 130 to 140 fms. deep. A 50-inch cylinder pumping engine has been erected on one, with pitwork of proportionate strength and magnitude; and a 20-inch cylinder steam-whim on the other, which, with two other steam-whims, crushing, and stamping machinery, constitutes the extent of the present mechanical power. From these statements it will be seen, that there is every reason for congratulation; and as a convincing proof of the estimation in which the property is held by the directors, we may state, that more than half the shares are held by them, and their immediate friends; and it must be a source of much gratification to all concerned, that the mine has been now worked to a handsome profit for a considerable number of years, paying from 20 to 25 per cent. per annum on the capital invested, and giving employment to a large number of the population—thus securing to themselves and families a full abundance of the necessaries of life.

THE ZINC MINES OF THE VIEILLE MONTAGNE.—The shareholders in this company, held their general meeting, at Liege, on the 14th ult. The accounts for 1845 were submitted and approved of; from the report of the directors, it appears, the gross profit in the year amounted to 94,483*l.*—from this amount, however, there was to be deducted the following sums:—For new buildings, 2877*l.*; for redeeming of rent, 4068*l.*; for interest paid the shareholders, 10,080*l.*; and for clerks and office expenses, 200*l.*—so that the net profit to be divided was about 77,539*l.* For the last five years, all the new buildings have been paid from the profits, and, notwithstanding expenses, there had been paid off since the establishing of the company, successively, 54,243*l.* from the original debt. The reserve funds are increasing annually, by additions from the profits, and had amounted, on the 1st January, 1846, to the sum of 102,643*l.* As this increasing sum might become rather an embarrassment to the company if laying dead, it was resolved last year to employ part of it by placing it at interest, and paying off debts. The company has effected this to a very great extent, by distributing to the shareholders certain proportions, so as eventually to wholly reimburse the nominal capital of the shares without altering the position of the shareholders—only that the scrip which bears an interest for the amount of the nominal capital, will become, in a few years hence, *bonâ fide* shares; thus the society will have repaid its primitive capital, which will be reconstructed by the reserve funds: each shareholder, independently of the 2*l.* per cent. interest on his investment, will receive a dividend of 10*l.* on the 10th of July next—they will have received for 1845, at the rate of 40 per cent. on the nominal value of each share. After having given a detailed account of the financial position of the company, the directors considered it their duty to caution the meeting against the infamous insinuations which had been maliciously propagated by jealous parties, respecting their property, and the *concession*, or grant, of the Vieille Montagne. The company, the CHAIRMAN stated, had established its rights as *concessionnaires*, or leaseholders, according to the terms of the law of the 28th July, 1791, for a term of 50 years—being the longest lease, or grant, allowed by that Act; but, in consequence of the law of the 21st of April, 1810, the company became *grantees* in perpetuity.—The CHAIRMAN and DIRECTORS clearly proved, that there was no distinction as to the rights of the company in Belgium and Prussia, as it is owners of the same grant or title of concession. The law of the 21st of April, 1810, is still in full vigour in the Rhenish provinces—the same as in Belgium—besides which, the treaty of limits of the 26th June, 1816, between Prussia and the Low Countries, has acknowledged the rights of the *concessionnaires*, or shareholders, of the Vieille Montagne.—After the electing of the directors, who went out by rotation, the meeting separated, highly pleased at the report, and a vote of thanks passed to the chairman and committee unanimously.

MANUFACTURE OF ZINC IN PRUSSIA—NEW COMPANY.—In connection with the detailed accounts we have, from time to time, published of the zinc mines of the Vieille and Nouvelle Montagne Companies, we have pleasure in being now enabled to give some particulars respecting a new company, formed for working the mines and zinc foundries of Stolberg, near Aix-la-Chapelle. The shares of this company were last week brought out in Paris, at the rate of 48*l.* each, and have already reached 56*l.*; but there is nothing extraordinary in this, when we consider that the *Vieille Montagne* is at 260*l.* the 40*l.* share, and the *Nouvelle Montagne* at 120*l.* the 40*l.* share. The mines of Stolberg appear to possess all the elements necessary to secure their success—having most important and rich concessions of calamine, lead, iron, &c., covering a superficies of 11,000 hectares; foundry works, containing 58 reducing ovens (smelting), with power to extend them to 75. There is a colliery immediately contiguous to the foundries, extending over a surface of about 500 hectares, and the present production of zinc already amounts to about 6,000,000 lbs., the melting and sale of which is certain. The direction, or committee of management, includes some of the most influential capitalists. The society is formed for the purpose of purchasing and working the zinc, lead, iron, coal, and lignite, in the administrative radius of the regency of Aix-la-Chapelle. A general meeting of the company was held on the 25th February, when, on the proposition of the committee of directors, all the clauses and conditions of the agreement, previously passed, for the purchase of the property, at the rate of 329,774*l.*—of which amount, for 240,000*l.*, 8000 shares of the company were to be taken in payment by the sellers of the mines, and 97,774*l.*, payable as annuities in 10 years, with interest at 4 and 4½ per cent. for the remainder of the amount. The remaining 2000 shares forms the extent of the company, which left in their hands a circulating capital of 60,000*l.* The following are the articles of agreement:—1. The company is established under the name of the Society of Zinc Mines and Foundries of Stolberg: the chief administration to be at Aix-la-Chapelle; and to be united for 25 years, dating from the 1st January, 1846, with facilities for extending the time.—2. The object of the company is to work the calamine, coal, iron, lead, lignite, and other useful minerals, which belong to them, within the radius of the regency of Aix-la-Chapelle, and the manufacture and sale of the different metals: all other undertakings are formally forbidden them.—3. The capital of the company is fixed at 300,000*l.*, divided into 10,000 shares, of 30*l.* each. The shares are transferable, and and the profits will be according to the returns of the year, with an interest of 5 per cent., payable on the 2d of January.

IMPORTATION OF BRITISH COAL INTO FRANCE.—From a return, with which we have been favoured, it appears that, in 1845, there arrived at Rouen 160,000 tons of British coal, and about the same quantity of wood, for fuel, from the north of Europe—Sweden, Norway, Russia, &c. A considerable quantity of iron, copper, and lead, hemp and flax, pitch and tar, &c., not only from this country, but the north—all of which passed up the River Seine direct, or by way of Havre de Grace. Rouen is one of the most important manufacturing cities in France, and is renowned for the superior quality of its cotton factories, rivalling those of St. Quentin. The number of these establishments, in the town and vicinity, amounts to upwards of 500; and it is justly looked upon as the Manchester depot of the country. The larger portion of these factories are worked by steam-engines and hydraulic power, or water mills, constructed by English engineers; and the foremen, as well as the leading workmen and mechanics, to the number of nearly 800, have been decoyed from the best cotton factories in the United Kingdom, at good wages, to superintend and instruct the native population in the process adopted in this country. Rouen has many advantages over other cities, as it is situated on the right side of the Seine, the tide flowing up sufficiently to allow vessels of 200 to 300 tons to land and take in their cargoes, and a constant communication exists with Havre by steam-boats, which affords great facilities to commerce. The annual consumption of English coal in the factories, gas establishments, and forges, in the vicinity, is rapidly on the increase; and when the railway from Paris to Rouen, Havre and Dieppe, is finished, it will be greater.

THE LEAD MINES OF SPAIN.—A commission of mining engineers was appointed some time ago, by the Spanish Government—at the head of which was Senor Don Felipe Narranjo y Garza, of the corps of mining engineers—to inquire into the principal lead and antimonial mines that are actually at work in the province of Zamora,—the result of which has been published by the Royal Society of Mines, from which we extract the following:—The most important mines which are in full operation in the province of Zamora, are two—namely, the one called Clara, being argentiferous lead, and belonging to a company, the chairman or president of which is his excellency General Manso; the other mine, called Generala, is antimony,—also argentiferous, although of various qualities,—and is worked by a company, the chairman of which is his excellency the Duke of Castroterreno. There are, however, many other valuable mines known to exist, but which have, to the disgrace of the proprietors, not been worked to a greater depth than 19 varas (or yards), although they offer, in a scientific point of view, a great opening to mining industry, if carried on by spirited and monied parties, particularly that of Losacio, forming a continuation of the Carvajales. The province generally contains some very valuable beds and veins of rich ore; and all that is wanting, is to work them properly, and they are certain of yielding a good remunerating profit. The whole of the Sierra, or ridge of mountains, are evidently metalliferous,—consisting of antimony, oxide of iron, the veins running W. 30° N., with an inclination to the south to about 50 to 80°. There has been discovered, antimony ochre, mixed with arsenic, sulphur, and acid of antimony, in different parts; but unfortunately none of the mines are worked with sufficient skill, the shafts are not sufficiently deep in order to carry off the water, as then the ores could be got at with great facility, and little labour. The lead mines, or ores of consequence, are situated at the distance of about 1000 yards to the south of the former, and in the northern limit forms a stratum of granite, very abundant in mineral. The first display of the veins is at the entrance of the shaft of the Clara Mine, which is chiefly formed of granite and small quartz—in other parts it is rather argillacious, and soft to the touch, having the appearance of kaolin or decomposed felspar, proceeding, no doubt, from the same granite rock in which the veins run. They are more prominent in the portion of the shaft halfway between the well or pit called Vigilante, and after that between the subterraneous passage known under the name of Buzon, where the principal deposit, or bunch, is found—composed, in its greater portion, of sulphur, arsenic, carbonate of sulphur, sulphuret of lead, containing a large quantity of chlorides, sulphurets of silver, which are of great benefit to this metal. They have unfortunately limited, at present, the depth of the excavating of this mine to only 19 yards, although the shaft towards the south has been sunk to 70 ffom the top, separating the rocky substance, which is a great guide to the miner. There are several other mines, which would be highly important, if well worked. That of the Espado el Canon, which is composed of antimony and lead, and other metals; that of the Company of Marte, which is well situated, and rich in ore; the mines of Santa Isabel, near Valdeconejos, and Santo Filomena, in the mountains Cogollas, besides various others, only distant about half a league from the large manufactory of Amistad. The ore is nearly at the surface of the earth. This may be chiefly accounted for, in consequence of the numerous varieties of minerals which seem to amalgamate or intermix, being indebted to their origin for the primitive deposit of antimonial, argentiferous galena, which the different floods have caused to become decomposed, and thence form a sediment. Should the mines of the province of Zamora ever be worked with all the facilities now afforded by machinery, and the improvements introduced, they will be most profitable.

RAILWAY REFORM.—In our last week's Journal, we slightly reviewed a pamphlet under this title, by James Troup, Esq., and published by Mr. P. Richardson, Cornhill: we shall now give a few extracts, to lay before our readers his arguments to prove the rights of the shareholders, and the public, in the railway highways of the kingdom. After showing that the present Government Railway Board is one of the worst constituted in the kingdom, and that shareholders cannot better promote their interests than by supporting the Government in reforming the present system, for the purpose of protecting their property against future fluctuations in value, and thereby securing regular returns, he says—"The good effects of special committees of the House of Commons are generally neutralised by the appointment of persons more or less interested in abuses, and those hitherto appointed for the purpose of reporting on railway legislation have been of that unfortunate description. Even the one recently appointed, on the motion of Mr. Morrison, has three persons who should have been excluded, upon the same principle that defendants are not permitted to sit on juries selected to decide on cases in which they are interested. It would be quite enough to examine Mr. Hudson, Mr. Russell, and Sir John Easthope, and print their evidence, without permitting them to select and examine witnesses, especially as each is connected with interests vigorously prosecuted against those of the shareholders and the public: the circumstance of Sir John Easthope being connected with the management of a line of railway between London and Southampton, charging the shareholders 24,000*l.* per annum for surface repairs, which might be done by the company for one-sixth part of the amount, is sufficient to justify these remarks. Mr. Hudson, who is said to have realised 300,000*l.* by one railway transaction, and Mr. Russell being connected with the management of a line estimated at 2,500,000*l.*, and stated to have cost the shareholders 7,000,000*l.*, must be considered disqualified, without imputing to them anything disreputable; but the shareholders and the public require purely disinterested judges and advisers, and it would reflect credit on all who are not so, if they retired from that or any other committee, appointed to investigate abuses in the management of railway highways." After going through several reports of engineers, and evidence before the committee, as proving the great and unnecessary cost of the railways at present established, he says—"In order to understand, in a plain common sense way, the works necessary to form a railway, the ears must be closed against the mystified stuff and nonsense uttered by some of the crack railway engineers, and rely on advice taken from respectable local surveyors. Tunnelling, which appears the most difficult, is an ordinary mining operation; and an experienced miner, with a moderate salary, is much more capable of superintending the construction of a tunnel than a Brunel or a Stephenson; and there is little doubt, that scores of miners could have been found to make the Thames Tunnel in one-third the time, and at one-fourth the cost. A very great advantage to be obtained by the superintendence of local surveyors and trustees, is the judicious and economical application of the materials of the district, and not, as instanced in the case of the great viaduct on the Brighton Railway, where the engineer actually sent to Normandy for stone to make an open fence wall, while large quantities of excellent stone existed near the spot to make a solid one. Amongst the mystifications of civil engineers are the marvellous engineering difficulties they meet with. In one case, an engineer stated he had made such a wonderful embankment, that as fast as he put the soil on the top it came out at the bottom. On another occasion, that he had met with ground that would not carry an embankment, but was solid enough for the erection of a viaduct; and another engineer pretended it was necessary that he should be a geologist to understand how to form an embankment. The recent assertion, by a railway engineer, 'that the cost of constructing railways had increased 50 per cent. during the past year,' is quite in character with modern engineering evidence—the truth is, that the prices of labour, timber, bricks, and lime, are much the same, and the advance on iron would not make 5 per cent. on the whole. What dependence, then, can be placed on the evidence of professional men, who would make such assertions, when the cost of the ordinary works of a railway should be as well known in their respective localities amongst contractors and surveyors, as the price of corn or meat in the market. Let the works of railways be divided into moderate quantities, and offered to fair and honourable competition, and the result will be 50 per cent. under most of the estimates for the new lines, or the prices allowed to contractors usually employed by engineers. These, however, are the effects of employing steam-engine makers to perform the duties of road and bridge making: in short, everything has been done to make railway works appear what they are not—viz., difficult to plan and execute, instead of being of common sense character; and there is not an average length of 50 miles of railway, with two of tunnelling, through agricultural land, which should have cost more than 15,000*l.* per mile, if fairly contracted for under local surveyors."

SMOKE NUISANCE.—Experiments were made last week on board the *James*, Birkenhead steamer, to ascertain how far it is practicable to remove the nuisance of smoke from the steamers. A very simple apparatus was attached, and the result of the experiment was that the smoke was wholly removed, and the owners report a saving of nearly 20 per cent. in fuel, and more steam than formerly.—*Liverpool Standard.*

HALLETTE'S SYSTEM OF ATMOSPHERIC RAILWAY PROPULSION.

On Wednesday last, we had the pleasure of inspecting a line of railway, on M. Hallette's atmospheric system, on a scale sufficiently large to show the capabilities of the plan, and of noticing the first experiments which have been made in this country, to ascertain its superiority. This experimental line is laid down in the grounds belonging to the Rosemary Branch Tavern, at Peckham; it is about 400 ft. in length, the atmospheric tube 5½ in. in diameter, extending about one-third the distance of the rails, and from the end of this tube, which is on a level, the remaining two-thirds of the line is on a gradient of 1 in 80. In our Journal of the 28th Dec., 1844, we gave a description of an experimental line laid down on the premises of M. Hallette, in France, which was translated from an article in the *Journal des Chemins de Fer*, and we shall now attempt to describe the principle more in detail. The atmospheric tube is cast with a continuous horizontal opening, similar to Clegg and Samuda's, on each side of which is a semicircular projection, forming in section a figure, of which *Fig.* 1 is a representation; within these two hollows are laid two flexible tubes of vulcanised caoutchouc, surrounded by a hempen fabric, manufactured by machinery expressly for the purpose, and coated with black varnish; this, again, for about half the circumferenee is covered with stout pliable leather, capable of withstanding the rubbing motion of the coulter, or stem of the piston; these hose are inflated with air up to a considerable degree of compression, and thus form two lips, which, pressing together in every part, become an hermetically sealed, and self-acting valve: so perfectly free from leakage is this continuous valve, that whether the piston is at rest, or in rapid motion, water poured in the trough formed by the lips, does not, in the slightest degree, penetrate, but remains in its position after the carriage has passed. The coulter of the piston, where it divides the lips, is of a slender tapering form, terminating in two edges, of which *Fig.* 3 is a horizontal section; this coulter, as also the piston, are hollow, and communicate by a valve, and a small copper tube, with the vacuum to a barometer in the leading carriage, and which thus always shows the amount of pressure in the tube.

The valves necessary for dividing the tube into the required sections, and which in practice would not be closer to each other than four or five miles apart, are self-acting; the levers, which open them, project upwards on each side of the tube, and are acted upon by the front carriage on its passage, and, being on the double-action principle, the same effect is produced whichever way the trains travel, and, having passed a station, that section of the tube may be immediately again exhausted, ready for the next train. The experimental trials yesterday, notwithstanding various disadvantages under which they were made, were completely successful, showing the superiority of the system over that on the Croydon, and Dublin and Kingstown Lines—simplicity itself,—on the vacuum being obtained (which never exceeded 24½ to 25 inches of mercury), and the imprisoned carriage set free, it glided off with the noiseless swiftness of an arrow, the valve closing behind the piston as it passed, and rendering leakage impossible; and so trifling must be the friction, that after five or six journeys, as rapidly following each other as the vacuum could be obtained, which did not exceed from two to three minutes, the coulter was as cool as when it started at first. The experiment lasted from one o'clock until four; the speed and working of the line evidently improving at every journey, and gave the highest satisfaction to numerous scientific gentlemen present, among whom were several foreigners. It is evident that, independent of local disadvantages, such as leakage of the boilers of the engine, stiffness of the valves, &c., which all new machinery is subject to, and which will be remedied as they proceed, the system of M. Hallette will better show its capabilities the larger the construction of the tube—for instance, with a tube 15 inches in diameter and lips 4 inches, the flat joining surfaces formed by the compression of the air would be from 1½ to 2 inches, while, on the present model, they do not exceed from ½ to ¾ inch—the valves too, in this instance, being necessarily confined to a distance apart of only about 30 yds., while in working practice they would be five miles, gives immeasurable advantage to the latter, and, from the confined distance, it is, of course, impossible to obtain that speed, of which the principle is capable; enough, however, has been done to show the vast superiority of the system. There are no mechanical arrangements required for opening and closing the continuous valve—no adhesive plaster and grease to be pressed down by wheels and sealed with hot irons; but, simply like passing the blade of a penknife between the human lips, from which beautiful formation of nature M. Hallette took his idea. The carriages glide along with no more noise that what arises from the trifling vibration of the wheels and rails; and although the present model carriage is without springs, we never rode on any railway, either as a model, or of full size, where there was such an

Fig. 1.

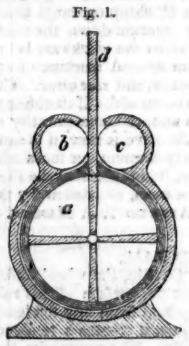


Fig. 2.

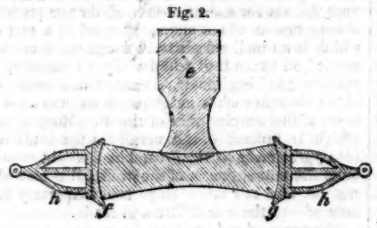


Fig. 3.

absence of all oscillation or shaking. In the above diagrams, *Fig.* 1 is a section of the tube and piston; *a*, the vacuum tube with the piston; *b*, *c*, the flexible and elastic hose forming the lips; *d*, the coulter of the piston, the upper part of which is attached to the leading carriage of the train. *Fig* 2 is the piston, which is double headed to work both ways, and which in full size, for working purposes, will not be above 2 feet in length; *e*, is the coulter; *f*, *g*, the leather packing; and *h*, steel springs of light pressure, which guide it in its course. *Fig.* 3 is a section of the coulter where it passes through the lips. M. Seguier has tested the merits of the system on M. Hallette's large model in France, and has furnished a report thereon to the Academy of Sciences, Paris, of which the following is a translation:—The increasing interest, which is displayed in the improvement of the various systems of rapid locomotion, gives us reason to hope that the Academy will listen, with its usual kindness, to a true description of one of these systems. The experiments he, and several of his friends, attended at Arras, in the establishment of M. Hallette, allow them to communicate to the Academy the repeated trials that were made in their presence, on the new method of atmospheric propulsion. Confident in his invention, M. Hallette has established in his vast factory a model of an atmospheric railway; and it is by experiments on a large scale, that he has been enabled to give to the public the advantages of his invention. The specimen that we visited, consists of an iron line of 122 metres (366 feet) in length, divided as to level into several parts—the first, of 111 feet in length, is horizontal; the second, of 90 feet, has a gradient of 0·005 per yard; the third, 75 feet in length, rises 0·016; and the last one, of 90 feet in length, ascends 0·026 per metre, or yard. The tube of propulsion is placed at the commencement of the line, and is 78 feet in length, diameter 0·38. At 18 feet distance, from the extremity of the propulsion tube, or 60 feet from the head, branches out the exhausting-tube—this pipe, of the same diameter as the first, is connected with an air-pump, placed at 75 feet distance, in which the air can be rarified on an average from 25 to 27 inches of mercury. This pump is worked by a steam-engine, connected with it. The carriage, which was tried in this experiment, weighed when empty 10,820 lbs., and was fastened to a piston by a perpendicular stem, which slides in a longitudinal opening, made through the whole length of the tube of propulsion, between two inflated India-rubber (caoutchouc) borders. This new method of closing the valve is the chief character of the invention. The propulsion is as follows—the carriage is placed at the entrance of the opening, and the piston is fixed in the orifice of the tube of propulsion; a cover is fixed for the purpose of closing the other end of the tube, fastened by bolts. The air pump is then put in action, and the vacuum is made progressively; a barometer is placed on the carriage, or waggon, which indicates the state of the interior air; and when the necessary vacuum is obtained, the signal of departure is given, and the carriage, which had been detained whilst the vacuum was filling, is then released, and the pressure of the atmosphere on the piston drives it off at a rapid rate, following the vacuum in the atmospheric tube throughout its length. The impulse given to the carriage is checked and regulated by means of a curb, or chain; when the carriage has arrived at the latter end of the line, and the tube is filled with air, it recedes by its own gravitation, the gradients are so arranged, that the carriage acquires sufficient momentum to arrive again at the place of departure—and the piston thus becomes re-placed at the orifice of the tube; the cap, or cover, is opened, and, by means of the air-pump, the whole is again shortly put in operation. The invention of M. Hallette can be subdivided into three principle parts—viz., the propelling tube, the piston, and the hose, which form the closing lips or valve. The tube of propulsion is of cast-iron, the section of which nearly represents a crescent—this tube has an opening throughout its whole length, and a circular fluting is fixed on each side of the longitudinal opening. Notwithstanding the attention which has been devoted to the improving of cast tubes, they are found to be so porous as to admit the air; M. Hallette intends henceforth to cover the pipes with a substance, capable of rendering them air-tight, similar to the method of M. Junker's tube, used for raising water at the mine of Huelgoath. The tubes are socketed, and placed one to another in the usual way—the joint being covered over by an elastic substance, which not only prevents the air entering, but also prevents the partial dilatations of each tube. The compressed nature of this material is so composed, that it allows each of the tubes to extend, without causing the slightest movement or alteration to the adjoining one. The elasticity of this is such that, at the moment of contraction of the tube, it remains perfectly closed. The interior of the tubes is left in its natural state,—but the tallow, or grease, with which they are saturated, so as to prevent friction, allows the piston to steady itself if the coat of tallow is slight, and forms a regular coating. The India-rubber tubes, forming the lips, are peculiarly the invention of M. Hallette,—and the caoutchouc hose he has been able to obtain greatly improved at an English manufactory. An atmospheric tube is placed in the factory of M. Hallette, on the same principle, but in a vertical position—which can be filled with water, without a drain coming out, if the lips are raised to little higher pressure to that of the column which separates them. After the numerous experiments made, we feel convinced of the efficacy of the new system of M. Hallette, and the perfect success of his lips or valve. M. Seguier will, in another paper, refer again to the subject, completing the Hallette atmospheric system, and give a more complete description of the mechanical arrangements of the piston, lips, &c., and the principle, which has been introduced with so much success.

GODSON'S PATENT SMOKE CONSUMING FURNACE.—At the Society of Arts, on Wednesday evening last, a paper was read by the secretary on a new furnace grate, patented by Mr. Godson, which is stated not only to effect a considerable saving in fuel, but to prevent the emission of smoke. The centre of the fire bars, for about one-third the width, forms a hopper with a moveable bottom, descending to the floor of the ash pit; this hopper is filled with coal, and as the fuel on the surface is consumed, the bottom is raised by machinery, worked by a lever—thus raising the whole body of coal, distributing the upper portion (which from its approximation to the incandescent fuel had become partially coked), over the surface of the fire; when the hopper is emptied, two iron plates are slid across the opening from the sides, the moveable bottom is lowered, the hopper filled, the plates drawn back, and the process proceeds as before. A long conversation ensued on the advantages of this and other smoke consuming apparatus, particularly on those plans for feeding from the bottom, of which there have been several within the last 30 years, not only for furnaces, but for common domestic fires. Several gentlemen spoke highly of Jukes's furnace, which we have so frequently noticed, as being most economical, and burning screenings of coal, which can be obtained for 5s. or 6s. per ton less than that usually employed with the best results, and entirely without smoke. This furnace is not fed from the bottom, but the bars revolve very slowly—thereby enabling the fire to be fed in front, giving out its smoke over the red-hot fuel, and, as it becomes incandescent, being gradually carried to the back; this process keeps the bars entirely free from clinker. With respect to the merits of Godson's furnace, we have no doubt it prevents the emission of smoke, as we have seen the principle carried out before; and cannot help thinking that this is a palpable infringement of Coupland's furnace—a description of which we gave in the *Mining Journal* of July 19, 1845—the only difference apparent to us being, that in Coupland's the coals are filled in on every occasion of fresh firing—while in Godson's, a large quantity is supplied, and raised gradually; and, as the former leaves a clear current of air over the whole surface of the bars, which, in the latter, is one-third choked up by a large body of coal, it appears to us anything but an improvement; the sliding plates too, in the room of Coupland's side bars, is far from an improved substitute. It appears strange to us that, among a number of gentlemen, who appeared practically acquainted with the various improvements of steam-engine and other furnaces—among whom were Mr. Newton, Mr. Bodmer, Mr. Scott Russell, and others—not one noticed the similarity of this to Coupland's plan, although it was acknowledged by the patentee, and subscribed to by all present, that the principle was anything but new.

CONSTANT SUPPLY OF WATER IN TOWNS.—We noticed, in the Journal of the 18th ult., a pamphlet by Thomas Wicksteed, Esq. (published by John Weale, High Holborn), on the evidence given before the Health of Towns' Commission, on the subject of establishing a system of constant supply of water to the premises of every inhabitant, and now give his principal reasons in opposition to the system recommended in that evidence. To come clearly to the point at issue, he states the advantages of the present mode of supplying water to be—its practical convenience tested by long experience—the provision of an equal distribution of water throughout all districts, however extensive, or however great the inequalities of surface—and the power of concentrating the whole force of water at one spot, in case of fire. The disadvantages of the proposed system he enumerates as follows:—Its adoption would be attended with enormous additional expenditure, and, with so many practical difficulties, as to render it almost impracticable, except in the case of small level towns, and that the evidence in support of it is insufficient and contradictory; and that the advantages claimed for it do not exclusively belong to it, but can be more surely and more economically realised by the present plan. To bear out these assumptions, he examines strictly into the evidence, and more particularly into that of Mr. Hawksley, of Nottingham, who was for some time engineer of the Trent Water-Works; and having shown that the cost would be enormously increased, the benefits to the poor nothing like to the extent calculated on—that the mains must be enormously increased—engines of much greater power employed—and, in fact, the obstacles so great, that it would be found totally impracticable—he comes to the following conclusions:—That in towns having any considerable irregularity of elevation, the result would be, that so long as the inhabitants in the lower districts are drawing off water, those in the upper parts would be able to get little or none; in large towns, without any great variation of levels, the houses near the source would receive more water through a pipe of given size than those at a distance from it, not only on account of the additional friction diminishing the velocity of the current, but because the quantity of water flowing into the pipe at the source and through its length, being fixed and limited, is undergoing a positive diminution at almost every house which it has to supply; that it is well known to the tenants of water companies, as well as to engineers, that in the summer time, when two or three taps in the lower part of a street are kept running, the houses in the upper part, instead of obtaining a butt full in an hour, as they would at other times, collect it with difficulty in 10 hours, and that, looking at the question dispassionately in all its bearings, which his long experience enables him to do, he is satisfied that the plan designated "constant supply" is scientifically untenable, and practically ineffective.

THE COLLIERIES OF VALENCIENNES.—There is now no doubt existing as to the correctness of the report, that the great banker of the Northern Railway of France (Baron Rothschild) has purchased up several of the extensive collieries near Valenciennes, as well as iron furnaces, forges, &c., in that district, and in Belgium, so that the directors will not only convey passengers and goods, but will have the advantage over the majority of other companies, by being enabled not only to provide themselves with a plentiful supply of coal and iron, and that at a very trifling expense, but also build their own machinery, for which purpose they are already establishing extensive workshops; they will, likewise, have the advantage of furnishing the public in general with coal, coke, and iron, at a far lower rate than any of the small coal or ironmasters possibly can, having the means of conveyance entirely in their own hands, thereby defying all competition. This monopolising system of monied men in France is creating a regular *terrorum* to the holders of smaller and industrious mines and collieries, as it will doubtless lead to their ruin.

Original Correspondence.

THE COPPER REGION OF LAKE SUPERIOR, U. S.

SIR,—I have the pleasure to hand you an article upon the subject of the mineral region of Lake Superior, written by Mr. A. A. Hayes, of Boston, U. S., expressly for your paper. This document was accompanied by a box of specimens of the copper and silver ore, or rock—and which samples, with explanatory pamphlets, and map of the district, I shall be glad to show any person, whose curiosity or business may lead him to take an interest in the progress of this wonderful discovery.

Liverpool, April 18. ROBERT K. CARTER.

THE COPPER REGION OF LAKE SUPERIOR.

In the surveys for township divisions of the State of Michigan, under the supervision of the late Dr. Houghton, it was ascertained that an extensive metalliferous deposit existed along the southern border, and on one or more islands of Lake Superior. A more particular *reconnaisance*, by Dr. Houghton, and several other eminent scientific naturalists, has fully established the important fact, that copper native, and in the state of ore, exists over an extent of surface corresponding with that of the lead mines of the western states, constituting an immense copper region; companies and individuals having secured grants of land from the United States' Government, and commenced working various deposits of metal and ore, a short account of their present prospects may be of interest to the English public. The first most striking feature which arrests the attention of scientific persons, as well as explorers, is the *form* in which the copper is found. Over extensive areas, and forming a continuous range, trap-rocks exist, which are in contact with sandstone, and are frequently traversed by veins of associated minerals. Not confined to these veins, but distributed throughout, and forming a constituent part of the trap-rock, is *native copper*, without a trace of any *ore of copper*. The particles thus mixed with the rock, vary in size, from that of a pea to very minute, and are more or less abundant throughout an *extensive formation*. Masses, from 50 ft. below the surface, and from points separated by miles of distance, when assayed, give us an average for the rock from 6 to 7 per cent. of copper; all of which, excepting a superficial coating of oxide, is perfectly metallic and malleable. With the particles of copper, and perhaps more irregularly distributed, are particles of silver, in a perfectly pure state. The silver particles are often in contact, and are welded to the particles of copper, *without the slightest alloying or interfusion*—no artificial operation could be more perfect. In the veins traversing the trap-rocks, native copper and silver occur in masses, or in particles, distributed throughout prehnite and calcareous spar. Masses, weighing 2 and 3 tons, of copper, having bolts and large pieces of pure silver passing into them, have already been obtained; but larger masses of copper have been found, almost filling the cavity, and extending as a vein would in the rock. The prehnite rock often presents a brown colour, from the quantity of fine scales of metallic copper in its substance—while knobs and points of pure white frosted silver project from the surface. One of these veins is very rich in silver, and is remarkable for easy working, as for more than 200 ft. it has a vertical direction in the face of a cliff. Other veins have been partially explored, and the whole cliff offers inducements of the most flattering character. A sample of the silver-bearing rock, of more than 20 lbs. weight, and composed of pieces, was averaged and assayed, affording silver and copper of more than $10,000 value in the *ton of rock!* The prehnite rock, excepting the visible particles of silver, gave a return of more than $2000 per ton of rock. The *metals*, silver and copper, from the trap-rock, obtained by stamping, are worth in silver and copper about $600 per ton—giving the *whole rock* a value equal to a 15 per cent. copper ore. Veins of black oxide of copper have been found and explored; this being the first known instance of this mineral occurring as an ore in veins or bunches. This ore, as mixed with some adhering sandstone, in a parcel of 15 tons, afforded 64 per cent. of copper. These forms of copper are known in other countries as the products of the decomposition of other ores lying near, and the agents which have produced the changes are easily recognised. Considered as altered ores, they have hitherto borne a certain small proportion by weight to the more common and extensively diffused ores from which they originated. Applying the reasoning from such observations, to the extensive deposits of the copper region of Lake Superior, and we have a measure of the probable extent of the metalliferous beds and veins, which the mind does not readily grasp. As was early predicted, regular veins of black sulphuret of copper in calcareous and heavy spar, have been found in many places. The high value of this ore does not express the importance of the discovery. From the absence of the ochry iron ores, in the rocks containing the metals, it was inferred, that pure sulphurets or chlorides afforded them. This inference is supported by the discovery of regular veins of sulphuret, and, should they prove accessible to even a moderate extent, compared with that of the metals, the mineral wealth of this region will be immense. A short season only has been devoted to the opening of the various deposits; the most superficial examinations have been made in a country clothed with forests, abounding in swamps, thickets, and water-courses, and far distant from the abodes of civilisation. Enough has been done to show that, under systematic mining operations, sustained by capital, this region may, like the lead region, in its produce, change the great currents of trade in the commercial world.—A. A. H.: *Boston, Mass., April* 1.

MINING IN AMERICA—RICHEST MINERAL DISTRICT IN THE WORLD.

SIR,—Not knowing the reception my communication might receive, I am not prepared with a second; but must confine myself at present to general remarks on the subject. Your correspondent, "J. W.," still continues his squibs at American mines, and ridicules the statements of a Mr. Rubio, who gives the area of the lead district, near St. Louis, Mo., at 2,000,000 of acres, and with the adjoining territories (not states) of Iowa and Wisconsin, forming the richest lead region in the world: this statement he considers a genuine Yankee bounce, and promises you statistics to prove his position. The inclosed public document* will help him in his statistics, and enable him to compare the lead district of the United States, which he considers as existing only in the imagination of us Yankees, with those of Europe. It is odd that one, who perhaps was never out of the sound of Bow bells, should obtrude his crude notions upon the world as information. The product of lead in England and Spain, in 1844, he gives as 21,000 tons; he will have to show a tolerable increase to make them *together* reach, in 1845, the product of the American mines, which is given, "from statistics fully to be relied on," at 72,000,000 lbs., or 32,000 tons. Nor is this to be wondered at, in a country where lead is abundant, and where 20 lbs. will buy a bushel of wheat; men will dig lead, if they can do so, without paying any rent, or even asking of any one the privilege.

In the matter of the copper and silver at Lake Superior, there is a strong probability—to say the least—that a very extensive district, rich in mines of copper certainly, and perhaps silver, is there discovered. As evidence of this fact, the Government have *given leases*, covering an area of 211 square miles—a tolerable mining field—and granted permits to locate 588 square miles in addition, which are not yet selected, but most of which will be as soon as the spring opens, and the country is accessible. That all this area of 800 square miles is mining ground is not imagined; but that there are extensive and valuable mining fields, cannot be reasonably doubted. I have a letter from an intelligent and respectable Cornishman, written in December last, who has been some months on the ground, who says—"I have visited many mining districts, been extensively acquainted with the whole process of mining, and have had considerable practice in mine surveying and reporting, but have never seen a mineral district superior to this. The number of metalliferous veins, their beautiful appearance, their contiguity to each other, the richness of the ores, the fine alloy of silver in many of them, all indicate immense wealth. The veins are well defined and regular; and there is scarcely a spot embraced by the locations but would warrant the outlay of almost any amount of capital, and promise adequate returns. The ores are rich; so rich that, in their raw state, they are equal, and in many instances superior, to the ores *(when dressed)* of the far-famed mines of Cornwall; they are easily pulverised, and may be made to yield a large per centage of fine copper."

"J. W." has now the declarations of a Cornishman, of the value of which your readers can judge. There have been in the district some 500 miners since last autumn; and, if 1000 were in New York in May next, they would all find employment, especially young enterprising men, competent to act as mining captains, or to direct ordinary labourers.

American Institute, New York, March, 1846. G. B.

* The official document, above referred to, is a Report of the Committee of Congress on Public Lands, and contains so much statistical information on the mining of America, that we purpose giving it entire, if possible, in our next Journal.

DISCOVERY OF PLUMBAGO IN SCOTLAND.

SIR,—In one of your highly useful and interesting publications in May, 1845, it was stated that the Lugar Iron Company had made a discovery of a large seam of plumbago, 8 feet in thickness, on the property of Sir J. Boswell, at Auchinleck, in Scotland. Can you, or any of your correspondents, inform me if such seam has been at all worked, if any of the produce has been brought into the market, its quality, &c.? As the principal portion of the plumbago, of anything like good quality, now to be obtained, is the stocks, remaining on hand from former produce of the Borrowdale Mine, which it is considered is nearly worked out, such a discovery as the one alluded to would be of immense importance to many mercantile parties, as well as to mineralogy, chemistry, and the public generally, and not the least so to—A PENCIL-MAKER: *Southwark, April* 28.

NATIVE STRONTIAN.

SIR,—Can you inform me in what part of England the native strontian is raised,—and if it could be supplied in any considerable quantity, and from what source?—J. S.: *Liverpool, April* 21.

ACCIDENTS IN MINES—ACTION FOR DAMAGES.

SIR,—My attention has been drawn to this subject from observing, in a late Number of your paper, an account of an action being brought by the wife of a miner, named M'Aullay, who lost his life by the sudden slipping of the crane, while lowering him in the shaft, by which he and another were killed, against Messrs. W. F. Buist and Co., the owners of the pit, and the jury, it appears, awarded her 400*l.* damages for herself and children. The case, in itself, is singular; as, from the relative situations of the generally poor miner, and wealthy coalowner, few widows are there, indeed, who would have the courage to commence an action against the latter, although the most glaring neglect in the efficiency of the machinery could be proved—indeed, in the present state of the laws in England, it would be impossible for a poor man or woman, unless backed by some wealthy supporter, to carry on an action for the recovery of damages for the loss of a husband, or a son. In Scotland, however, it appears the case is different; the law is there, apparently, open to the appeal of the widow and fatherless,—and a Scottish jury, by their verdict, show that they set some value on a human life—even on that of a poor coal miner.

When we consider the number of accidents which have taken place in our coal mines, in the north of England, in the last 10 years, and call to mind the records of faulty ropes, badly timbered shafts and galleries, unrepaired and make-shift machinery, deficient ventilation, and various other causes of the largest proportion of these deaths, which, by a comparatively small amount of well-timed expenditure, might have been prevented—it is difficult to form an idea of what the result would have been had similar proceedings been adopted. The example which has thus been set by this Scotch miner's widow, and its result, I should, Mr. Editor, be most happy to see followed up on proper occasions in this country—as I am convinced that the only way to make the majority of the coalowners alive to the safety of their workmen, is to touch their pockets; and I fear that, until some stringent legislative enactment passes, securing most efficient inspection, as to proper ventilation and effective machinery, we shall hear of a recurrence of those alarming accidents which have so often carried so much misery and awe into our coal districts.

Stockton, April 22. A RESIDENT IN THE COAL DISTRICTS.

THE GRANITE WORKS OF CORNWALL.

SIR,—The granite cairns, rocks, and quarries of Cornwall, are of vast superficial extent, and of great depth and height; hill and valley, mountain and moor, meadow and dell, upland and lowland, being more or less composed of, or studded with, those altars of the Druids, and the abiding bases on which they stand or slide. The cairns, like the peaked mountain of the ocean, juts into the sky—the rocks are piled in wild confusion, or like deserted dwellings gem the moor, the croft, or the village green. So durable is the material, that the "merciless peltings of the pitiless storms" of hundreds—aye, thousands—of years, are insufficient to doom it to decay. Its utility for marine, and other important works and costly buildings, has long been appreciated, and, in proportion as our roads and harbours have improved, the demand has increased, so as to cause an important traffic to be carried on in the article—large quantities being regularly shipped from Penryn and other Cornish ports.

Lamorna Cove is situated partly in the parish of Paul, and partly in the parish of Buryan, in Cornwall, being divided by a river, or rather a continuous waterfall, of great and rapid descents. That river may hereafter be applied to machinery at the Cove, which is a long and deep indentation, caused by the flow of water, and the subsidence of the adjacent sides, parts of whose bases are of granite, large detached masses of which project into the atmosphere. Having visited the Cove this day, as last year, with a picnic party, I was pleased to find a railway stage erecting to and over the sea for several fathoms, for the purpose of shipping large hewn oblong masses of cut stone, lowered in a cart or carriage down the road, which is an inclined plane. I could not learn whether the works are being carried on by an individual or by a company, but several workmen have made a good beginning. Demand will create supply, and *vice versâ*. The olden churches of the neighbourhood, and the harbours of the United Kingdom, afford ample proof of the durability of the material, the quantity of which is unlimited. A vessel for the trade of the cove is now, it is said, being got ready at St. Ives; but I would earnestly impress on those who have the management of the works, that care should be taken that she shall not be, like our other ships too frequently have been, overladen by the *insured*—to the risk of life and trade. ALFRED T. J. MARTIN.

Penzance, April 13.

MR. DEAKIN'S WHEEL AND RAIL.

SIR,—According to the sketch given by Mr. Deakin, the wheel differs little in construction from those now in use; but the surface of his rail, sloping inwards, is well calculated to keep each wheel from any tendency to run off the rail externally, but, at the same time, it creates a tendency in each wheel to slip or slide off the rail internally. These opposite tendencies are, in some measure, counteracted by the axles, which connect each pair of wheels; but a slight extra width, or irregularity in the gauge, might easily cause the wheels thus to slip off the rail. The rail itself appears of a more substantial form than those in use, and calculated to resist lateral pressure upon its inner surface, which appears not to have been the case with either the rails or chairs upon the Brandling Junction, which, evidently, gave way from want of any proper provision having been yet made to resist effectually the lateral pressure which is exerted against the interior surfaces of the outside rails in a curved line of road by the ill-fitted flanges of the wheels clashing and grinding against them. The little paltry cast-iron chairs, in which the rails are inserted, may be broken by the blows of a small hammer; it is not, therefore, surprising, that the successive blows of many heavy iron wheels should both break the chairs and bend the rails thus set at liberty.—R. MUSHET: *Coleford, April* 27.

MR. DEAKIN'S RAILWAY WHEEL.

SIR,—Though rather a theoretical than a practical correspondent, I venture an opinion on the suggestion of Mr. Thomas Deakin, as published in the *Mining Journal* of the 18th April. If that gentleman will reflect that the periphery of his proposed railway wheel, as shown by the above diagram, is a section of a cone, he will see that it is not adapted to locomotive traction. The lengths of the outer and inner circumferences, running on the rail, being unequal, there would be a retardation caused by the abrasion of the sliding smaller circle, the larger one progressing more rapidly over a greater space by contact alone, the friction of the adhesion reacting on the axletree. The base of a cone, revolving on any plane, would describe a circle; and the flange, by successive or alternate resiliances, counteracting that tendency, would have a greater friction, notwithstanding the elevation of the outside of the rail. The sliding friction of the outer or smaller circumference of the wheel, would abrade or wear the outer portion, and "*roll*" down the inner portion of the rail and the wheel also. What is true of a whole cone, is true of a part in this instance. The inference, therefore, is, that a conic section is not adapted to right lined, or ordinary curved, progression. The case is not altered by the fact of there being two wheels and rails. In addition to the ordinary flange not being a mechanical certainty, it is anything but a mathematical arrangement; the motion of the abrading parts being unequal, and therefore causing a friction, which is a loss of progressive or retrogressive power. Besides, in Mr. Deakin's arrangement the inclination and breadth of rail are not sufficient to prevent running over. I some time since suggested a central rail, with small side-guide wheels. It does not appear, however, that this has been tried. Apologising to Messrs. Mushet and Greenhow, the gentlemen appealed to, and acknowledging some former hints on relative circumferences, I remain, &c., A. T. J. MARTIN: *Penzance, April* 21.

RAILWAY MANAGEMENT—LEGISLATIVE INTERFERENCE.

SIR,—I am led to think, when railway enterprise has arrived at its present confused state, it becomes the Legislature to interfere with its progress—for it is impossible to conceive a more gross error, than to think that Parliament ought to sanction any newly-projected line, or the extension of any line, without making a strict inquiry into the real merits of the undertaking, when it is clear to every one, of ordinary conception, that railways will ultimately become the principal highways of this and every civilised nation—and that the present arrangement of railways is far from being satisfactory. Therefore, it is of great importance that due consideration be paid to the utility, and natural advantages, of all future lines—also, to their management and construction—whereby a large and increasing population may have every possible advantage; for there are numerous ways in the management of railway matters, whereby the public lose their share of the benefits accruing from a great national improvement.

It is generally agreed, that the best arrangement for railways would be a proper number of trunk lines, diverging from the metropolis to the principal country towns,—and, if possible, from one general terminus. The trunk lines ought to be made as direct as the nature of the country, and the accommodation they are intended to afford, would permit: great attention ought also to be paid to economy—because the cost of a railway must regulate the tolls charged by the company for the conveyance of passengers and goods upon it. If the projectors of future schemes would adhere strictly to direct communication, and construct lines on the most approved principles (making first the main trunk lines, afterwards the branches), we should ultimately have good railway communication; but there are few companies who act without prejudice and selfish motives—therefore, unless the Government appoint a competent staff of engineers to lay down some proper plans, otherwise to inquire into the merits of the projects of others, it is impossible the public can ever have the full advantage of a quick and cheap mode of transit. Some allowance ought to be made for those errors that were made when railways were first brought into use—because the proprietors had not the opportunity of profiting by example, and judging from facts; but I can see no good reason for excuse on the part of those companies who recently have wilfully expended double and treble the amount of capital they ought to have done.

The number of laboured articles, that have recently appeared in some of the daily papers, to describe the peculiar merits of extending some of the worst managed railway monopolies in existence, have, it is to be hoped, made a different impression on the minds of shareholders and the public, than they were intended to do; and I am glad to see some of them contradicted in a manner which does credit to the gentlemen who have devoted their time and their talents in explaining some of the proceedings of such companies as deserve exposure. A small pamphlet, just published, by James Troup, Esq., entitled *Railway Reform*, is worth the attention of all who wish to have a knowledge of the proceedings of railway companies.—A CIVIL ENGINEER: *London, April* 28.

NEW METHOD OF OBTAINING AND USING MOTIVE POWER.

SIR,—I beg the favour of being allowed, through the *Mining Journal*, to submit, for the public consideration, a plan for obtaining and using motive power, which, I think, is calculated to effect very beneficial changes for all ranks and classes of the community. There has, of late, appeared in your Journal, some propositions for using compressed air, and various correspondents have expressed their opinions on the subject—most of them appearing to be strongly prejudiced against the use of that principle, and none of them (as it seems to me) having previously qualified themselves to discuss the question, which the serious mistakes committed by nearly all who have ventured any remarks strongly testify; and as this is the principle which I shall endeavour to prove is very far superior to all others yet known as a motive power, it is necessary, in the first place, before entering on an explanation of my plan, to discuss the subject of compressed air. I shall, therefore, on the present occasion, confine myself to a consideration of that part of the question; and, should I have the misfortune to commit any errors, I hope that some of your correspondents will have the kindness to point them out. In the first place, I shall assume that the opinion generally entertained in regard to compressed air is correct—viz., that its expansive force is increased in the same proportion as the space which it naturally occupies is diminished; and that, at the earth's surface, it has a pressure of 15 lbs. to the square inch. It has been proposed to compress air to 60 or 66 atmospheres; and, although I have no intention of proposing to compress it above four atmospheres, yet it may not be amiss to discover (if we can) the power requisite to compress it to the extent above stated. Let us take a column of air 64 feet high, 1 inch square; and, in the first place, find what amount of power is necessary to compress it into half its present bulk, and thence into a receiver, charged with air at the same degree of density. Of course, we must presume that proper contrivances have been made to insure a correct result. If a weight be placed on the top of this column of air, the distance it will descend may be found by arithmetical proportion—for instance, suppose we first place ½ lb. on the top, the pressure above and below being previously 15 lbs. on each side, we, therefore, add the ½ lb. above, and say 15 : 15·5 :: $61\frac{32}{33}$: 64, which shows that ½ lb. weight will compress the air $2\frac{1}{33}$sts of a foot; remove the ½ lb., and place 1 lb. on the top, and say 15 : 16 :: 60 : 64, by which it appears that 1 lb. will cause a descent of 4 ft.; and as the medium pressure, in raising the degree of compression from 15 lbs. to 16 lbs., and from 16 to 15 lbs., &c., is one-half a pound, we will consider the first 1 lb. to be ½ lb., and that in compressing the column from 64 to 32 feet it falls 32 ft., and calculate all the remaining 14 lbs. from the points where they are placed on the column, which can be found in the manner described above. The following is the result:—The first ½ lb. falls 32 ft., which is as 1 lb. to 16 ft.; 2d, 1 lb. to 28 ft.; 3d, 24·47; 4th, 21·333; 5th, 18·526; 6th, 16; 7th, 13·238; 8th, 11·636; 9th, 9·782; 10th, 8; 11th, 6·4; 12th, 4·923; 13th, 3·555; 14th, 2·285; 15th, 1·1—total 185·246 ft. By the above calculation, it appears that the weight requisite to reduce the supposed column of air to half its former bulk, is 1 lb. falling 185 ft., or 185 lbs. falling 1 ft.—which, if divided by 32, the distance the air has been compressed, will give 5¾ lbs. to each foot of compressed air. The weight necessary to force it from the point at 32 ft., into a receiver charged with air at two atmospheres, will be 15 lbs.: 15 lbs. then falling 1 ft., and 5¾ lbs. (or, in round numbers, say 6 lbs.) falling the same height, gives 21 lbs. as the power requisite to produce a column of air 1 in. square, and 1 ft. high—this weight, multiplied by 144, gives 3024 lbs. as the power requisite to produce a cubic foot. We will now proceed with the further compression of the air: it has been shown that 21 lbs. falling 32 ft. will produce 32 ft. of air 1 in. square at two atmospheres; if the same weight be again applied it will reduce the air from 32 at two to 16 at four atmospheres, which I will presently show. It must be remembered, that in doubling the pressure, in the first instance, an average of the varying weight was 6 lbs. falling 32 ft.; in compressing it from 32 to 16 ft., we have a weight of 15 lbs. to start with. We will first take that: 15 lbs. falling 16 ft. is equal to 7½ lbs. falling 32, which, added to 6 lbs., makes 13½ lbs. After deducting 15 lbs. we have a weight varying from 0 lbs. to 30 lbs., which, by the method previously explained, is found equal to 12 lbs. falling 16 ft.; it is something less, but, for practical purposes, 12 lbs. is quite near enough: we have, therefore, to add to the 13½ lbs. 6 lbs. more, which makes 19½ falling 32 ft. We have next to press the air the remaining 16 ft., into a receiver charged with air at four atmospheres: this part of the operation will require a uniform weight of 45 lbs.—so that we have to add 22½ lbs. to 19½ lbs., which make together 42 lbs. falling 32 ft.

I think it is now pretty clear, that to produce 16 measures at four atmospheres, it will require just double the power requisite to produce 32 measures at two atmospheres—or, in other words, 1 ft. 1 in. square at four atmospheres, require 84 lbs. falling 1 ft. to produce it, while 1 ft. 1 in. square at two atmospheres requires only 21 lbs. falling 1 ft. to produce it; so that the mechanical effect which 1 ft. at four atmospheres is capable of producing, is equal to that which can be produced by 4 ft. at two atmospheres. Now, what has been said in respect to the power requisite to reduce 32 at two to 16 at four atmospheres, holds good with regard to the power requisite to reduce 16 at four to 8 at eight atmospheres, and from 8 at eight to 4 at 16 atmospheres, from 4 at 16 to 2 at 32 atmos., and from 2 at 32 to 1 at 64 atmospheres, &c., down to any extent. Now, to produce 1 ft. at 64 atmospheres, the compression is doubled six times—so that, if arrangements were made, whereby all the mechanical effect that 1 ft. of compressed air at 64 atmospheres is capable of producing, it would be six times as much as that which could be produced by 32 ft. at two atmospheres, or equal to 192 ft. at the latter degree of density. According to the above rule, the power to produce 1 ft. 1 in. square at 64 atmospheres is 21 lbs.

falling six times 32 ft., or 4032 lbs. falling 1 ft.; if this be multiplied by 144, it will give the power requisite to produce a cubic foot, which is 580,600 lbs. falling 1 ft. By the above rule, it will be seen that 1 ft. at 64, 2⅔ ft. at 32, 6 ft. at 16, 16 ft. at eight, 48 ft. at four, 192 at two atmospheres, are each respectively capable of producing an equal amount of mechanical effect, and will each respectively require an equal amount of power to produce them: thus it appears that, if 1 ft. of compressed air at 64 atmospheres be allowed to expand to 2 ft., it will have lost one-sixth only of its value, not one-half; if again it expand to 4 ft., it will have lost one-third; if to 8 ft., one-half; and if to 16 ft., two-thirds, where it will be reduced to four atmospheres, and will have an effective pressure of 45 lbs. to the inch. Now, although it is true that, if two equal quantities of air were compressed—the one to 1000 lbs., the other to 50 lbs. per square inch—the former would have 20 times the expansive force of the latter, for 1000 is 20 times 50; but it is by no means true, that it will do just 20 times as much work: if it be meant that the air should have respectively an effective expansive force of 1000 lbs. and 50 lbs. to the square inch the former would not perform three times the work of the latter, instead of just 20 times as much. It may be well here to notice, that 1 ft. at 64 atmospheres will make 16 ft. at four atmospheres—the pressure at which Mr. Parsey proposes to use it; but if, by his arrangement, he allows it to expand to that degree, without securing the mechanical effect, which in the act of expansion it is capable of performing, he will lose *two-thirds*, not "$\frac{15}{16}$ths" of its former value. By an arrangement similar to what has been proposed by your excellent correspondent, Mr. Thomas Craddock, of Birmingham, for high pressure steam-engines, the loss might be reduced to less than one-third. It may also be as well to state, that as 1 ft. at 64 atmospheres will make 16 ft. at four atmospheres, *fifteen sixteenths*, instead of "only one-half," of the quantity of compressed air, with which the receiver of the locomotive was charged, would be available before charging again. It is not to be inferred, from what has been said, that I am about to propose a similar plan; but the above remarks have been made in consequence of some of your correspondents being a little too uncharitable towards an unsuccessful inventor. In conclusion, I beg to state, that at my earliest convenience I will, by your kind permission, lay before your readers the plan, to which allusion has been made.

JOHN WESTON.

Portland Town, April 20.

THE CHARITABLE TRUSTS BILL.

SIR,—In reference to the above bill, now before the House of Lords, I venture to intrude, should you deem the following remarks worthy of a place in your most valuable columns. In the *Times* paper of Monday, 6th April, is a letter addressed to the Editor, signed "A Looker On," commenting upon the impropriety of such a bill, should it pass. He says, it is one of the most serious measures which have been introduced into Parliament for many years. I agree with him in this point. It certainly is one of the most serious, and justly important—and the only sure and decided measure—which could possibly be adopted; for, were any other means to be applied, they would infinitely fall short of the effect available by these measures, in order to give full satisfaction to the subscribers of charitable institutions throughout England and Wales, and also to gain the good opinion of the public at large. The clauses, which he refers to as being injurious, are the very identical items most worthy the attention of the honourable Members of the House of Lords; and, in passing the bill, may full power be given to the Lord Chancellor to appoint the three commissioners, and two inspectors,—and that the commissioners may also have it in their power to appoint a secretary, clerks, messengers, and officers, as laid down in the bill, for the due administration of these numerous small charities therein named, with every other act and deed the bill may empower them to do in the exercise of their duties, in order that justice may be done in the distributions of their benefits,—and, at the same time, to remove all abuses that may have, and still are, creeping into these charitable institutions. The extraordinary powers, &c., he speaks of, are somewhat too clearly pointed out not to be understood from whence they come. In regard to their being inconsistent with the spirit of the constitution, is quite absurd, and not worthy of the least reflection; for to do justice has ever been one of its highest principles adhered to, as far as honour and equity would admit of in the administration of its own power: mercy and justice have ever been administered, as far as honour and equity would admit of to others. On these very grounds, then, of honour, equity, mercy, and justice to the public, it seems the Government, or it members, are determined to act, in reference to the better conducting of the great hospitals and great public schools, which have too long been neglected, and left to the arbitrary control of their managers. The bill, in its present form, exempts those charities connected with the Universities of Oxford and Cambridge, and this he makes an excuse for the exemption of all hospital institutions and public schools in this country, and particularly those of this metropolis. Why should there be any exemptions from the operations of this bill? No! there ought not to be any! there can be no sound reason given, why the Universities of Oxford and Cambridge should be allowed this indulgence;—the public have certainly an undoubted right to know how the management of these institutions is carried on. The subscribers, should this bill pass, will then see that their donations are justly applied; whereas, in many instances, for the want of a judicious outlay, its chief object is oftentimes defeated; and although the managers, in the administration of the revenues of these great public charities (such as the great hospitals and great public school), do not receive any direct salary for their services, yet the amount of an emolument is, in many cases, looked up to indirectly, and this said amount is often more than sufficient to satisfy a few petty clerks, &c., to arrange and adjust the distributions of the subscribers' donations. The most essential clause, which he sets forth as a calamity, must, in all its bearings, be considered one of the greatest benefits in its operations—a measure calculated, unquestionably, of the highest importance to the benevolent and honourable feelings of a British public.

The bill gives the Lord Chancellor power to appoint three commissioners and two inspectors; and gives the commissioners, in their turn, power to appoint a secretary, clerks, messengers, and officers, with full power to inspect and examine the accounts of all charities, to regulate the form and manner of keeping such accounts—to make inquiry into the application of their revenues—to call for and inspect all books and documents—to summon before them any officer or officers, and to examine them on oath—to punish those who refuse to appear to be sworn, or to answer, by an unlimited fine—to remove such officers as they may disapprove—to compel all charitable institutions, at their own expense, to furnish copies of their title deeds. The commissioners are authorised to report to the crown, at successive periods, on these and other matters, connected with the management of all charities.

Can there be more just and honourable measures given for the improvement of these charitable establishments, and to render satisfaction to the contributing population, who will at once see the necessity of adopting such means to prevent the abuses, and intolerable inconsistencies, which are daily carried on in most of the great hospitals and public schools? Why should the managers of these institutions object to the examination of their books, records, documents, &c.,—if their accounts are kept clear and accurately, and free from all fraudulent entries? but so much secrecy on the part of the management of these great charitable hospitals, and public schools, cause, in the minds of the public, a strong suspicion that all is not right, as it should be—and which the provisions of this bill, should it pass, will entirely eradicate.

A LOVER OF JUSTICE.

Lincoln's-Inn-Fields, April 25.

[ADVERTISEMENT.]

KINGSTOWN AND DALKEY ATMOSPHERIC RAILWAY.

TO THE EDITOR OF THE TIMES.

SIR,—I observe a paragraph in your paper of to-day, extracted from *Herapath's Railway Magazine*, asserting that "the cost of locomotive power, on the Dublin and Kingstown Railway, per mile, is 8¼d., whilst on the Kingstown and Dalkey Railway the cost of atmospheric traction, per mile, is 24d., or nearly three times as much." The assertion is utterly untrue, as will be seen by the following extracts from the report published by the directors, and laid before their proprietary at the general meeting, held on the 28th of March last:—On reference to that report you will find it thus stated:—"The Dalkey line has fully borne out the anticipations of the board, as to the regularity and efficiency of the atmospheric system of traction, as will be manifest from the fact that there were 21,708 trains dispatched during the year, and but 13 trains lost." And also that the "total cost of [atmospheric] power, and the maintenance of way, was 10·7 pence per train per mile." Further on it gives the cost of trains run upon the locomotive line between Dublin and Kingstown, viz.:—

Cost of locomotive power	£6836 17 8
Cost of railway maintenance	3276 17 1
	£10,113 14 9
Trains despatched	30,970

This sum of 10,113*l.* 14*s.* 9*d.* divided by 30,970 trains × six miles (the length of the line), gives a result of 13·05 per train per mile; and clearly shows the working cost to have been in favour of the atmospheric system in the proportion of 10 to 13. I inclose a copy of the report in question, to which I would refer you, and also to the *Railway Record* of this day, containing some very proper comments upon the unfair manner in which his contemporary has distorted it. I rest the claims to superiority for the atmospheric system on other grounds of equal importance with that of economy, inasmuch as it affords to the public the greater convenience of more frequent trains at a less cost, combined with a higher speed and more safety. I have always treated with contempt the repeated and unscrupulous assertions put forward by the journalist referred to, but when your widely-circulated columns are made the medium of conveying his mis-statements to the world, I am naturally desirous to unmask, through the same channel, the dishonesty of the course he has adopted, for the purpose of injuring the system in public estimation, and I will therefore thank you to insert this letter in your paper of Monday next as an advertisement, if it be not otherwise admissible.—JOSEPH D'A. SAMUDA: 10, *London-street, City, April* 25.

[ADVERTISEMENT.]

LIFE ASSURANCE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—The just comments contained in the *Times* of the 10th of March, on the serious consequences of insurance companies converting their policies, when they become claims, into instruments of litigation, excited general attention at the time, and I for one hoped that its remarks would have had their due influence on the conduct of all such institutions.

Every office is unquestionably bound to employ all fair means to guard against fraud; but as fraud in such cases can always be more easily imputed than disproved, in consequence of the removal of the party charged with its perpetration, such charges ought never to be made, except upon the most valid grounds, otherwise the system of life assurance will become altogether worthless.

The case of "Geach *v.* Ingall," tried at the last Warwick assizes, is one, in connection with this matter, which ought, I think, to be brought before the public more prominently than it hitherto has been. The following is, I believe, a correct outline of its merits:—

A person, named Scott, insured his life in the Imperial office, nearly four years before he died. He happened to die of consumption, and the directors having heard that he had on one occasion (four years before he insured his life, and, therefore, between seven and eight years before his death) spit blood, disputed payment of the policy; a trial took place at Warwick, and a verdict passed against the office. The company then obtained a new trial, on the ground that Lord Denman, who tried the cause, did not put certain questions properly to the jury. A second trial took place before Sir N. Tindal, and a verdict was again given against the office. I am now told that the office has once more applied for a new trial, and as the judges have granted a rule, the probability is, that the company will try its strength, for a third time, and may do so, indeed, for as many more times as it can raise such new technical points as those on which the rule *nisi* has, I hear, just been granted.

Now, I have insured my own life in the Imperial Office for 5000*l.*, and the life of another member of my family is also insured for the same amount; but I confess that the sense of security which I have hitherto enjoyed is most materially affected, when I see such evidence of a disposition on the part of the office to disregard the repeated decisions of competent juries, and to go on indefinitely moving for new trial after new trial—a course by which a precaution which I design and pay for as a benefit to my family at my death, may be turned into a mere source of anxiety, expense, and disappointment.

Few persons possess adequate resources for a costly litigation with a powerful company, and if, in the case to which I allude, the policy had remained in the hands of the family of the assured, the company must have succeeded in its opposition; but the policy was purchased from the assignees of the assured by a gentleman who fortunately has the means of vigorously prosecuting his claim. That he should do so is of the utmost importance to all who insure their lives, and I hold that he is entitled to every encouragement and assistance in endeavouring to show to insurance offices that they cannot be allowed to proceed with impunity in the course of seeming wrong and injustice pursued by this office. If any persons who are insured should deem it worth their while to communicate with me on the subject, I shall be prepared to co-operate with them in calling a general meeting in London, of all who may be favourable to the formation of a fund to aid parties who may not be able to enforce their claims, however just, against a powerful company, in obtaining their rights, and thus preventing those injurious compromises to which, under the system so ably denounced by the *Times*, many, doubtless, are now obliged to submit.

I am, Sir, your most obedient servant,

Birmingham, April 28.

WILLIAM SCHOLEFIELD.

ON THE CHEMISTRY OF THE STEAM-ENGINE.

BY T. CRADDOCK, ESQ., BIRMINGHAM.

LECTURE V.—On the economy which experience proves is thereby attainable—On their application to steam-vessels, to locomotives, and to stationary-engines, with some farther remarks on the extended range of utility, which the foregoing facts will make apparent.

[*Concluded from last week's Mining Journal.*]

With the evaporation of 120 cubic feet of water in the present locomotive, we have seen that 133-horse power gross is thereby obtainable. We know that the jet or blast destroys power equal to that of 20 horse; and that the resistance induced by engine and tender was equal to 23-horse power. I have said that my system would dispense with the jet, and also the tender; and I may add that, if it be desirable, the engine itself would not be by four tons as much weight as those now used for the same power. We next find that the resistance induced by the engine, and its appendages, would be reduced from 43 to 11-horse power. Is it asked, how this is to be effected? I have anticipated the answer in part, and shall only observe here, that we get rid of the resistance of the blast by not requiring the wasteful expenditure of steam, which has led to its adoption. We shall be able to dispense with the tender, by requiring no additional supply of water to that contained in the boiler; and, I firmly believe, we should not require above ¼ the quantity of coke for the production of the same power. The necessity, on the present system, for such an immense volume of steam per minute, requires great weight in the boiler; but, on the removal of that necessity, will follow the reduced weight of the engine. If we render 32-horse power available for the purpose of propelling the train, which now is consumed by the jet, and the extra resistance to the tender, &c., and add to this the increased power produced from a given weight of steam, with the atmosphere removed, or a vacuum of only 10 lbs., we find that a 10 lbs. vacuum would, of itself, give us 35-horse power—to which add the 32-horse power we have seen is rendered available by the other diminished resistance. We have thence reduced the quantity of water requisite to be evaporated, from 120 cubic to 54 cubic feet per hour. But hitherto we have taken no account of the economy due to expansion, which would certainly, with steam generated at 115 lbs. per square in., reduce the quantity of water required to 40 cubic feet. Pambour has shown that only 75-hundredths of the water that passes though the locomotive engine is really converted into steam; so that the quantity of steam to be condensed to propel a train such as we have been describing would not exceed that producable from 33 cubic feet of water. A condenser which would effect the condensation of this quantity of steam per hour certainly would not be above 30 cwt., and occupy a circular space of about 5 feet diameter by 7 feet high, or would not stand above the framing of the engine more than 5 feet. That these statements will be received with a great degree of scepticism is what I am quite prepared to expect. Nevertheless, it does not follow that, therefore, they must be wrong. I have not made them without cautiously weighing my principles and evidence. I have also, as before intimated, given no slight amount of thought as to their practical adaptation for the railway. I, therefore, hesitate not to place on record my firm conviction, that though the various items may not all be verified in the exact proportion in which I have given them, yet the general conclusion will, one day or other, be confirmed; this effected, the locomotive must far surpass the atmospheric system in economy of fuel.

The next question for our consideration is its application to steam-vessels. To come as close as possible here also to practical comparison, we will suppose the engine-power of the Great Britain steam-ship to be 1200 horse. We will suppose steam used expansively, being generated in tubular boilers, under a pressure of 115 lbs. per square inch. Now, it is beyond question that steam so generated and used expansively will produce double the amount of power from any given weight of coals consumed for its production, compared with what it is equal to if generated under a pressure of only 18 or 20 lbs. on the square inch. I do not think it worth while to say more here on the ill-grounded, if not ridiculous, notion of danger from such steam in such boilers, as, if the evidence already adduced is not sufficient to dissipate such fears, I know of no amount of evidence equal to such a task. If we, therefore, suppose a voyage to and fro, between Liverpool and New York, to occupy 672 hours, and to require 828 tons of coal, at a cost of 10 shillings per ton, we have here a saving of 414*l.* sterling. But the saving would be even greater than this in the reduction of the useless freight, consequent upon the diminished quantity of coals, with a very much less weight and bulk of machinery. I firmly believe that the saving here would be two-fold the mere saving arising from the diminished quantity of coals. But I will take it at 414*l.* also, or a clear gain equal to 828*l.* sterling, upon each voyage to and fro, between the above-named places. Supposing eight such voyages in the year, the saving would amount to 6624*l.* sterling. If this be the saving which would be realised in one steam-vessel per annum, it is difficult to calculate what would be the saving from the application of such principles to all the marine steam-engines, even in Great Britain; not to speak here of its application to the various countries of the world. It certainly must be admitted that our present marine steam-boilers are not such as are calculated to preclude fears of the most direful consequences, in case of war; as, owing to the great quantity of explosive matter they contain, they may become, by the effect of the enemy's shot, an auxiliary to aid them in the destruction of our vessels and crews. Tubular boilers would do much to remove these fears, as, from their greater compactness, they may be placed more out of reach of the enemy's shot, and also be protected in the most efficient manner to destroy its force. Again, should the shot take effect, and the boiler pour forth its contents, it would be in a far less destructive manner than what would follow a similar occurrence with the present boiler. The advantages accruing to stationary engines are, first, a means of condensing, where water for the purpose is not attainable, avoidance of the evil effects arising from injurious waters, from deposit, or otherwise; a means of working engines in situations where water, even for the high pressure engine, is not at all times attainable. Another great advantage to the stationary engine is, that it will very much enlarge the circle of its profitable application; as, if we reduce the quantity of coal one half, for the production of a given power, it is clear, that, as far as the cost of fuel prevents its profitable application, owing to the distance from the pit's mouth, or otherwise, that the districts from which the steam-engine is precluded, owing to its consumption of fuel, will many of them be brought within the range of its profitable application.

For the purpose of common road locomotion and agricultural purposes, these principles will be found to have great recommendations. Various are the objections by which parties would fritter away the before-named advantages. Among these is that of greater original cost. The fact, I am sure, will be found to be that, in original cost, it will not be greater per horse power than the low pressure condensing engine; for, although the condenser is certainly more expensive than that in the injection system, yet the greatly diminished size of the engine for equal power will compensate this. Greater complexity is another of the ready objections which seem to be ever at hand to keep down innovators in these matters. I know of the history of no good thing which hath not been lavishly assailed by the two forestated objections; and I will not be quite sure, if history were taken as the grounds to form an opinion upon, whether they would not be the strongest commendations in favour of the vital and extensive good embodied in the things so assailed, as things not laden with some extensive good to mankind seem never to have called forth so determined an opposition to their introduction as those which have embodied sound and expansive principles. I do not think the explanation of this matter very difficult, but it would lead me into a strain of thought not suited for the occasion. I shall, therefore, pass it by. Another class of detractors would have, that inventors are only serving themselves. Without going into any critical examination as to the moving spring of men's actions, I will suppose the case of an old woman begging in the street; one man meets her importunity by insolent and unfeeling expressions, another relieves her necessities. This matter may give rise to a very learned disquisition as to which, or either of them, acted from a disinterested motive; in which case, perhaps, it would be said that the one man gratified his malevolent propensity, the other his benevolent desires; but, on an appeal to the woman, she would soon settle the question, by alleging that the first increased her pain, whereas the latter relieved her necessities. This is a distinction beyond all subtleties. I, therefore, propose that things should be judged of according to the good therefrom arising, whether all end in their author's personal gratification, or in the wide spread good they confer on others. In this particular case, what I can ever hope to receive must be, by way of comparison, infinitely less than what must accrue to others.

From what one can gather from reading, observation, and experience, there would seem to be a strong desire at the present day to patronise and divert the efforts of men to almost any other source in search of cheaper motive power rather than deliberately reflect, whether or not the steam-engine hath exhausted its latent resources. Indeed, the assertion is often put forth, that it is useless for men to hope to improve it; and, therefore, they are called upon to turn their attention to seek something superior to it in another direction. Amongst those things which are representated as substitutes, are the atmospheric system, compressed air, &c. &c. Now, I humbly conceive that these, and such as these, are not motive powers at all, but simply mediums for transmitting motive power; as I think no one will be bold enough to say, that if we compress a spring, that we have therein motive power, in the sense in which that word is ordinarily used; if so, surely there can be no difference in compressed air by mechanical means. But there is one other substitute which possesses better claims on our consideration, as to the probability at present existing of its furnishing as with a motive power at all equal in economy, not to say more economical, than the steam-engine. This is electricity. I am enabled to affirm, on the knowledge of one who is better able to form a correct opinion on this subject than myself, that in as far as the cost per horse-power would be concerned by the agency of electricity, that it would be at least 20-fold greater than that of the cost of steam as ordinarily used. It will, therefore, affirm that, with the economy the steam-engine is capable of, that the pretensions of electricity, in an economical point of view, would be to pay 40*l.* for a given quantity of power derivable from such a source, whilst steam would give us the same for 1*l.* It seems highly probable that we have no active agent in the inanimate material world except electricity. If so, is it not one of its varied forms, which gives life (if I may so speak) to the steam-engine? I would not be thought to think lightly of those philosophical investigations which tend in any degree to reveal the hidden secrets of nature; for, as reasonable would it seem to me, that he who contemplated the erection of a splendid edifice, should pay no regard to the foundation thereof, as that we should hope to produce the best combinations without first knowing as much as possible of the individual elements.

LITERARY NOTICES.

South Australia and its Mines, with an Historical Sketch of the Colony, under its several Administrations, to the period of Capt. Grey's Departure. By FRANCIS DUTTON. London: T. and W. Boone, New Bond-street.

We have looked forward to the appearance of this volume with considerable interest—it being the production of a gentleman long resident in the colony, and who, from his intimate acquaintance with its various institutions, and connection with the officers attached, we deemed eminently qualified to produce a comprehensive "historical" work, the want of which has long been felt. Mr. Dutton (who is one of the owners of the great Kapunda and other mines) has successfully performed his object—that of giving a plain matter-of-fact description of the present state of the colony—her resources and management—with a complete historical sketch of its discovery, rise, and progress. The work will be read with advantage by all seeking a knowledge of this thriving colony, and, from its style, and the interest with which the various details are invested, will well repay a careful perusal by the general reader.—Our present notice is necessarily merely introductory, as, from the vast importance of all matters connected with mining in South Australia, and the lucid manner in which the subject is treated by Mr. Dutton—so well qualified for the task—we shall be compelled to draw to some considerable extent on his pages, to enlighten those of our readers who may not have an opportunity of perusing the work,—which, we may add, is illustrated by maps and several interesting views.

Railway Litigation—How to check it, with Remarks on the proposed Railway Relief Bill, and Suggestions for Regulating the future conduct of Railway Enterprise. By T. T. A'BECKETT. Effingham Wilson, Royal Exchange.

This is another pamphlet which has arisen out of the present extraordinary position of railway allottees and provisional committeemen, and which takes a very comprehensive view of the motives which gave existence to the late railway movement, which the author observes were neither visionary or ignoble. At its commencement it was universally felt that this movement would, in its legitimate course, bring into vigorous and useful action the pecuniary resources of the country, and develope its powers, both physical and intellectual; experience having shown that completed railways had yielded a most satisfactory return for the capital employed, and contributed materially to the general welfare. Professing to be influenced by these considerations, projectors of railways rose up in myriads, proffering schemes which were rushed into by the public with blind precipitancy—the capitalist being associated with the adventurer, the wise with the foolish, the cautious with the desperate, until the whole country became infected with that morbid spirit of adventure, most appropriately designated the railway mania. He then assumes that the railway constituency may be divided into three classes—the first forming the majority, being those who entered into the schemes with no other desire than to traffic in the allotments of shares; the second consists of persons much in the position of a gambling house proprietor, and have a direct interest in keeping up the concern, though at the loss of the subscribers; and the third class, forming a most dismal minority, are those who took shares in a scheme, believing it to be a good and *bonâ fide* undertaking, and a profitable and safe investment. The author then observes, that there are among the vast mass of fraudulent or ill considered projects, many which have not been entered into either recklessly or unadvisedly, and which are, in every way, worthy of the attention of the capitalist and the assistance of the Legislature; these ought not to be swept away among the rubbish, but suffered, for a time, to lay simply dormant; but there is scarcely an undertaking waiting the sanction of Parliament, however intrinsically valuable, that would not at once be abandoned, were its subscribers convinced that upon them alone would devolve the task of completing it within a fixed period. He then proceeds to show how the evils which have arisen may be avoided in future; he recommends that the directors of the companies that have passed the ordeal of a committee, to proceed with their bills, introducing a clause, allowing the majority of the shareholders to suspend all operations under the Act, for intervals of six months, but so that the whole time for completing the works should not, in the aggregate, be prolonged more than three years beyond the time ordinarily allowed by the Legislature for completing railway undertakings—that as many are unable to judge of the propriety of the charges they are called upon to contribute to, and their being no tribunal by which these points can be settled, it is proposed that provisional committeemen shall be allowed to treat those projects on which the Parliamentary deposit has not been paid, as dissolved partnerships; and on submitting the accounts thereof to the inspection of a public officer, and obtaining a certificate as to their fairness, the right shall be conferred of enforcing payment from each allottee of his proportion of loss—and if the directors reserved an interest for private purposes, which on finding they could not accomplish, they afterwards sought to throw upon the public, they ought themselves to bear the burden, and they should deposit with the registrar their original allotment book, verified by the oath of their secretary; and that the claim for contribution should be limited to those to whom allotments were made upon the first distribution. He proposes to do justice to those, who, on receiving their allotments, paid their deposits—to give to every such one the right to recover from the directors, by the order of a commission of bankrupts, the difference between the amount the allottees had actually paid—and that which, on the verification of the accounts by the public officer, would appear to have been their fair proportion. To guard the allottees against being burdened with a larger share in the concern than they applied for, it is proposed that where the deposits are not paid up before proceeding to Parliament, that the directors shall call a meeting of the allottees; and unless they, or the directors, choose to take up the shares not paid on, they should break up the concern, as in no case should they be allowed to go on, unless every share were in the hands of some *bonâ fide* holder. By these steps, directors would take care to keep down expenses, while knowing they would have to bear all which the public would not consent to share with them, and it would make them careful that the scheme they were embarking in was one that the public would be likely to join.

A LACKER EQUAL TO GOLD.—At a *soiree*, held last week, at the British and Foreign Institute, some specimens of a process for imparting the effect of electro-gilding without the use of gold, were exhibited by the inventors, Messrs. Sedgwick and Taylor, of Piccadilly. By this method the surface of brass can be wrought up to a degree of finish so exactly resembling gold, that it is said the most experienced eye could not detect the difference; and in one of the candelabra shown, the lower half was coated with real gold in the usual mode, and the upper half finished without a particle of gold or gilding, yet no one could determine the point of union. In addition to the richness of effect, this invention is stated to have the further advantage of much greater freedom from tarnish than ordinary gilding, and can be produced at a saving of 700 per cent.

NEW INSTRUMENT FOR CALCULATING TIME.—At the Royal Institution, an interesting lecture was delivered on Friday week, by Professor Faraday, in illustration of Professor Wheatstone's newly-invented instrument for indicating the smallest intervals of time, by means of electro-magnetism. It is called the Electro-Magnetic Chronoscope; and its action is so perfect, that the time occupied in the completion of an event, however brief and imperceptible to the senses that time may be, is nevertheless distinctly and accurately marked upon the dial plate. After many preliminary experiments in illustration of the subject, the learned lecturer proceeded to show the operation of the instrument itself, which, by its delicate precision, will prove of the greatest utility in such philosophical investigations as require perfect accuracy in the measurement of any given space of time.

OCHRE WORKS ON DARTMOOR.—A company has been established for working an extensive sett, in the parish of Peter Tavy, found to be very productive of yellow ochre; which is stated can be raised at a great profit to the adventurers; upwards of 25 tons can be returned, and prepared for the market weekly, at from 25*s.* to 30*s.* per ton, which can be readily sold at 5*l.* and 6*l.* per ton. The company is divided into 200 shares, with a capital of 400*l.* paid up, and it is calculated that about 150*l.* more will be sufficient to bring them into a profitable state.

BRITISH PATENT NAPTHA.—This company has taken a portion of the Dartmoor prison (which was formerly inhabited by the French prisoners,) for the purpose of erecting their chemical apparatus, and extracting from the peat (with which Dartmoor abounds,) an excellent naptha, similar to [illegible].

ANOTHER CURE OF A BAD LEG BY HOLLOWAY'S PILLS AND OINTMENT.—Extract of a letter from Mrs. Murray, whose husband had been a sergeant in the Scotch Greys, and is now in the Metropolitan Police [illegible] (Charles-street, Westminster, 24th April, 1846.—SIR,—Having been long afflicted with an abscess in the leg, I applied for relief to some of the most eminent of the medical profession, but getting no better, I was admitted into the Westminster Hospital, and after a long stay, left uncured; indeed, the surgeon said, that any further effort on his part was perfectly useless; yet, shortly afterwards, my leg was cured by using Holloway's pills and ointment.—Sold by all druggists, and at Professor Holloway's establishment, 244, Strand, London.

Proceedings of Public Companies.

MEETINGS DURING THE ENSUING WEEK.

THIS DAY.....Manchester and Birmingham Continuation and Welsh Junction Railway London Tavern, at One.

MONDAY.....Mines Royal and Mineral and Battery Works Co.—office, Dowgate.
Southwark-bridge Company—London Tavern, at One.

TUESDAY.....West Middlesex Water-Works Company—office, at One.
Highgate Archway Company—office, at Two.
London and County Railway and General Investment Co.—office, at One.
Northern and Southern Connecting Railway—office, at One.
Anglo-Mexican Mint—offices, at One.

WEDNESDAY...Ulster Canal Company—offices, at Eleven.
Jamaica South Midland Junction Railway—office, ½ past Twelve for One.

THURSDAY.....Mexican Company—office, at One.
London and Birmingham Railway—Euston Station, at Twelve.
Southend Pier Company—George and Vulture Tavern, at Three.
London and South Essex Railway—London Tavern, at Twelve.
Llynvi Valley & South Wales Junction—London Tav., Eleven for Twelve.

FRIDAY.....Manchester, Buxton, Matlock, and Midlands Junction—office, at One.
Midland and Eastern Counties Railway—London Tavern, at Twelve.
Reading, Guildford, and Reigate Railway—London Tavern, at Twelve.

SATURDAY.....London, Hounslow, and Western Railway—King's Arms Tavern, New Palace-yard, Westminster, at Twelve.
East Lincolnshire Railway—Crown and Anchor Tavern, Strand, at One.
Leeds and Carlisle and Yorkshire and Glasgow Union—offices, at Twelve.
Manchester and Southampton Railway—offices, at Two.
Devon and Courtney Consols—Tavistock.
Harrowbarrow Consols—on the mine.

[*The meetings of Mining Companies are inserted among the Mining Intelligence.*]

LONDON AND YORK RAILWAY.—We noticed, in the Journal of last week, the correspondence between the committee of the shareholders in this company, appointed for the purpose of communicating with the directors, as also with those of the Eastern Counties Company, to carry out an amalgamation with the latter, instead of further prosecuting their bill through Parliament. In the present state of railway property, and particularly as this company is now situated, with respect to the Eastern Counties Company, whatever may have been the merits of this line six months since, it will, doubtless, now be the most economic and the wisest plan to hand it over, with its surveys and preparatory arrangements, to the Eastern Counties Company, who will be enabled to carry it out with much greater facility than a new company. That a more direct communication between London and York, and the north of England, is most seriously required, there cannot be a doubt; and the evidence of Mr. Pease before the Parliamentary committee, shows clearly the delays and inconveniences occasioned by the present circuitous route over various lines belonging to se perate companies. He stated, "That he could raise 2000 tons of coal per day, and make 2000 tons of coke per week; but that little of either was consumed in the neighbourhood—the greater portion being sent southwards, and thence to all parts of the world: he believed the London and York project, if carried into effect, would work a complete revolution in the whole coal trade of England: he could sell coal at the pit's mouth at 6s. per ton, and, by a London and York line, he could deliver it at King's-cross, after paying the City dues, and pay the expense of delivery within a circuit of six miles, at 1*l.* 4s. 7½d. per ton. The formation of the railway would save an immense amount of coal which was now destroyed, as the small coal might, on the construction of this railway, be sold for 8d. or 9d. per cwt.; and it would appear hardly credible, but such is the fact, that in one year, when a calculation was made, the amount so wasted in the northern coal-fields amounted to 1,500,000 tons: he had no doubt that the traffic of coal alone would give the company 5 per cent. on a cost of 25,000*l.* per mile—in fact, if it was guaranteed that the maximum charge should not exceed ¾d. per ton per mile, he, with other parties, would engage to pay the 5 per cent. per annum on the capital." We give this extract from the evidence, to show the value of a more direct northern line than exists at present; and as the present untoward circumstances connected with railways render it desirable that the London and York shareholders should not be saddled with the risk and enormous expense of carrying out the bill now before the House, the Eastern Counties Company, on completing their line to York, will offer the same advantages which Mr. Pease in the above remarks attributes to the London and York—the only difference being a deviation of the route, the slightly increased distance, not lengthening the time of transit to any extent worthy of notice.

IRISH GREAT WESTERN RAILWAY COMPANY.—In the *Mining Journal* of last Saturday, we made some remarks on the publication of a pamphlet by an anonymous writer, evidently intended to throw doubt and dissatisfaction among the shareholders, and avowedly for the purpose of causing the dissolution of the company. What the motives of the writer may have been, we know not; whether from an extraordinary feeling of enmity which has been evinced by a party against everything which tends, and everybody sedulously endeavouring, to develope the wealth and benefit the population of the western districts of Ireland, or from greedy speculation, with the hopes of preying on the alarmed holders of shares, by purchasing low, and then by causing the breaking-up of the company, pocket the difference between the price paid for them, and the deposits returned. The pamphlet was published just on the eve of a general meeting, called by the directors, doubtless, with the hope of obtaining proselytes; the meeting, however, which was held in Whitehall-place, on Saturday last, took a very different view of the matter than their anonymous adviser. The parties present represented above 16,000 shares, and Mr. FITZSTEPHEN FRENCH, M.P., was called to the chair. The directors' report was read, which stated—That the committee had thought it advisable, at the present crisis, to make the shareholders fully acquainted with the circumstances of this undertaking.—That the bill, authorising the construction of a railway from the trunk of the Great Southern and Western, or Cashel Railway, at Portarlington, to Galway, had been sanctioned by the Select Committee of the House of Lords, after a protracted and acrimonious contest maintained against it by the Grand Canal, and Dublin and Mullingar Railway Companies, in every stage of its progress. The competing line to Galway, proposed by the last-named company, had been rejected by the same tribunal, and the bill for establishing railway communication between Dublin and Galway (*viâ* Portarlington) entire, as brought forward by the committee, awaited a third reading in the House of Lords, and it was expected would be the law of the land in a very few weeks. —That the committee were aware that, under the existing circumstances of the money market, very great caution would be required in their future steps, and, after the most mature consideration, they had determined not to make any call upon the shareholders, except one, upon registration (not to exceed 1*l.* per share), until the line should have been opened to as great an extent as the means at the disposal of the committee would permit. Local circumstances offered facilities for the carrying out of this plan; 16 miles from the junction with the Cashel trunk at Portarlington, the line reaches Tullamore, the assize town of the King's County, containing nearly 7000 inhabitants, and situated upon the Grand Canal, at a point which is the pivot of the greatest part of the passenger traffic now carried on by that establishment. Seven miles beyond Tullamore is Clara, another important station, and six miles further, Moate, which is within nine miles of Athlone. The railway can be conveniently pushed on, gradually, to these four stations, and made to pay for its progress as it shall be advanced. After payment of the Parliamentary expenses, there would remain a balance to the credit of the company of 60,000*l.* To this might be added 90,000*l.*, the subscription of the Great Southern and Western Company, which that body were willing to advance, as might be required; and there would then be the sum of 150,000*l.* available for the immediate commencement of the works, without calling upon the shareholders for a single farthing. That sum, it would be seen by the engineer's report, would be sufficient for the construction of 16 miles of railway.—That the main trunk of the Great Southern and Western was completed as far as Portarlington, and would be opened for traffic in the present summer. The station at Portarlington, the staff of servants, and the carrying stock, would be available at once for the service of the Galway Line, so that traffic can be commenced upon it the moment any portion of it is completed. Owing to these advantages, it is confidently expected that the line would be in profitable operation, as far as Tullamore, within eight months from the date of the passing of the Act. By adopting the plan proposed, each step of progress will be made to pay for itself; but feeling as they did the great importance to the interests of the company of completing the communication between Dublin and Galway, as speedily as possible, the committee would let no opportunity escape of expediting the accomplishment of that object; and, in conclusion, that the committee had great satisfaction in stating that they had received the most cordial support from the London and Birmingham Railway Company, two influential members of that board having been named as directors in the bill, whose advice and assistance could not fail to be of the most marked advantage to the interests of the company.—From the statement of accounts, it appeared, that the amount of deposits and interest received, amounted to 106,995*l.* 5s. 8d.; and that there had been expended in the last session in engineering, 6579*l.* 13s.; legal and Parliamentary expenses, 16,653*l.* 7d.; offices, advertising, and sundries, 205*l.* 8s. 11d.—total, 25,284*l.* 2s. 6d., leaving a balance of 81,711*l.* 3s. 2d., from which the cost of the present session, estimated at 21,000*l.*, had to be defrayed—leaving a clear balance towards construction, of 60,000*l.*, as stated above.—The CHAIRMAN observed, that he had letters from several gentlemen who were unavoidably absent, and commissioned him to act in their behalf; among them were Mr. Stewart, M.P. for Limerick, Sir John Gaisby, Admiral French, &c.; and Mr. RODGERS also stated, that he had similar letters, representing from 600 to 700 shares.—The CHAIRMAN did not think it necessary to notice the anonymous attacks which had been made upon them; the directors had treated them with perfect contempt, and did not think it worth wasting the company's funds in answering them. The shareholders must form their opinions and resolutions from facts, and he wished them, after they left the meeting, to consider well the statements which were there laid before them, that they might judiciously decide at a future day whether they should proceed or otherwise.—One gentleman present (Mr. CLARKE), who described himself as one of the largest holders in the room, thought that, in the *present state* of Ireland, the line could *never prove remunerative*, and recommended serious consideration before proceeding in its construction—an observation at which we cannot help expressing our surprise, as the most certain means of raising that unhappy country from its present degradation, furnishing its now famishing population with the comforts of life, and developing the vast resources with which the country teems, is, the establishing means of cheap and rapid transit for its produce, and opening out every possible adjunct to its commercial and agricultural prosperity, and which can only be obtained by the construction of railways.—Mr. CARR (a director of the Dublin and Cashel Line), was strongly attached to the undertaking: he believed it would tend to develope the great resources of Ireland, and prove highly remunerative to the shareholders: he was decidedly of opinion, that the line ought to be leased by the Cashel Company at a minimum per centage, with a fair and equitable division of profits: he would take an early opportunity of submitting a proposal to the directors, and hoped they should satisfactorily arrange before the next meeting.—The report was adopted, and we trust to be able to announce the commencement of the construction of the line at an early period.

CORNWALL AND DEVON CENTRAL RAILWAY.—A special general meeting of the shareholders in this company was held at the London Tavern, on Thursday, the 30th ult., for the purpose of consideriug the present position and prospects of the company—H. WILLYAMS, Esq., in the chair.—After some observations from the chairman, Mr. CROMBIE (the secretary) read a report from the directors—a lengthy document, which had been prepared for recommending certain proceedings; but they had since discovered that the proceedings of the House of Commons, with regard to the dissolution of companies, precluded them from taking any steps themselves at present towards a dissolution. The principal feature in this document is the account of the expenditure, which has already amounted to 68,536*l.* 8s. 11d., including 35,000*l.* paid for the Bodmin and Wadebridge Line; and the liabilities still outstanding, it is expected by parties capable of judging, will make the preliminary expenses amount to 95,000*l.*; while the total of the deposits on 112,742 shares was 295,947*l.* 15s. Among the items of expenditure, there are some which appear highly objectionable—for instance, there is charged for engineering expenses 13,823*l.*, when it is well known that very little has been done since their establishment, as they took the line already surveyed by the old company; the extraordinary sum of 3313*l.* 2s. 6d. is charged for brokers' commission on the allotment of shares; and which, with 6000*l.* for law expenses, and nearly 5000*l.* Parliamentary, is a pretty clear proof that strict economy has not been much pressed for, or acted upon. The principal matter discussed was a petition, which the provisional committee proposed to lay before Parliament, praying that the majority might have the authority to bind the minority to that course of proceeding, which they might consider beneficial to the interests of the scripholders.—The CHAIRMAN having moved that the petition be adopted and presented to Parliament, a long discussion ensued—the motion being supported by Mr. Chisholm, Mr. Harvey, and others.—Mr. SERCOMBE moved an amendment, that the petition should be, to place the Cornwall and Devon Company in the same position as other companies now before the House.—Mr. FARQUHAR, the solicitor to the company, proposed to add a clause to the petition, praying that the bill be passed into a law as soon as possible—neither of which motions were put to the meeting, which appeared quite distracted as to what course to pursue, and, after a long conversation, it was agreed to adjourn *sine die*. With a vote of thanks to the chairman, the shareholders thus tacitly recording their willingness to wait the result of Sir R. Peel's measure.

BRISTOL AND EXETER RAILWAY.—A special general meeting of shareholders in the above company was held at Bristol on Monday, JAMES GIBBS, Esq., chairman of the board of directors, in the chair,—for the purpose of considering the drafts of the bills for the construction of the North Devon, Yeovil Branch of the Bristol and Exeter, and Cornwall Railways, as far as they severally related to the Bristol and Exeter company. Mr. Savery, of the firm of Savery, Clark, and Co., read through the marginal references to all such clauses of the bills as related to the Bristol and Exeter Company. The secretary, J. B. Badham, Esq. then read a resolution approbatory of the bills, which the directors wished the, meeting to adopt. After a conversational discussion, the resolution was adopted, and the meeting broke up.

PUBLIC OPENING OF RAILWAYS.—In the course of the present month no fewer than eight railways will be publicly opened. The most important of them is the North British—the directors of which company have certified to the Board of Trade their intention of opening a portion of their line, should it be approved by the Inspector-General, on the 2d of May, from Edinburgh to Cockburnspatch and Dunbar. A farther passage will not be attained for some time, owing to the backward state of some of the principal portion of the works. The first portion of the South Devon Railway, from Exeter to Teignmouth, is announced to take place on Friday next. The Blackpool Branch Railway, from the Preston and Wyre line, is to be opened publicly to-morrow, with much ceremony, The directors and shareholders will leave Fleetwood at three o'clock, in a train for Blackpool, and dine together at the Clifton Arms. The Blackburn and Preston line of railway is in so forward a state that the directors have announced its opening on the 1st of June, although it will be ready for goods traffic much earlier. The Furness Railway is intended to be opened for the passage of goods-trains on the 1st of next month, and for passenger traffic on the 1st of June. —The opening of the Eastern Union Line, in continuation of the Eastern Counties Railway at Colchester to Ipswich, is stated to take place at the latter end of next month. With the exception of the tunnel near Ipswich it is completed, and locomotives are running up and down the line with ballast-waggons. The Margate branch of the South Eastern Railway, four miles in length, branching off from Ramsgate, is expected to be completed by the end of June. The Thames Junction Railway, a branch from the Eastern Counties at Stratford to the river, has been opened, within the last few days, for the passage of coal-trains. Passenger-trains will not run on it as yet.

RAILWAY TRAFFIC.—From our official returns, it appears that the amount of traffic for the last week, on nearly 1800 miles of railway, was 141,777*l.*, thus accounted for:—79,149*l.* for the conveyance of passengers only, 33,769*l.* for the carriage of goods, and a remainder of 28,859*l.* for passengers and goods together, not respectively apportioned—being an increase over the corresponding week of last year of 30,996*l.*—*Railway Chronicle* of this day.

DIRECT BIRMINGHAM AND LEICESTER RAILWAY.—A report has appeared to the effect that the directors of this line had resolved on proceeding with their application for the bill; it is proper, however, to state that no definite resolution has yet been arrived at, but it is understood that the directors will hold a meeting on Monday for that purpose.

NORTH WALES MINERAL RAILWAY.—As this line is now nearly completed, we have made some inquiries as to the probable time of opening it. The directors have repeatedly had the subject under their consideration; and have at length determined to postpone the opening until the works of the Chester and Holyhead Line, across the Dee, and through the city to the Chester and Birkenhead, and Grand Junction stations, are completed. We think the directors have exercised a sound discretion, inasmuch as until the line of railway from those stations is continuous and unbroken, it is evident the traffic could not be worked with profit to the company or advantage to the public. In the meantime, the directors are engaged in making the most complete arrangements, and such as will almost immediately fully develope the capabilities of the line. The works on the Chester and Holyhead line are progressing with great rapidity.—*Chester Chronicle.*

BREAK OF GAUGE.—The Bristol and Birmingham Railway Company are showing a very laudable desire to reduce as much as possible the inconvenience of the break of gauge; they have altered some of their trains so as to fall in with those on the Great Western Railway, and it is understood they are about to put on additional trains between Gloucester and Cheltenham for the like purpose. Much inconvenience has been felt by passengers arriving at Gloucester after the train for Cheltenham had started; and to remedy the evil, we learn that the directors of the Bristol and Birmingham line intend to make the alteration alluded to, on the first of the ensuing month—so that parties leaving London by the Great Western Railway, at four o'clock in the afternoon, will then be able to reach Cheltenham the same night; in addition to this, a train will be despatched from Cheltenham to Gloucester, to meet the Great Western up mail train, which leaves Gloucester at midnight.

CITY OF DUBLIN STEAM-PACKET COMPANY.—The meeting of this company, for receiving the report of the directors for the last half-year, and declaring a dividend, was held at the company's office on the 25th inst. The report appeared to give much satisfaction to the meeting, and the usual dividend of 3 per cent. for the half-year was then declared. It appeared by the report that a considerable increase of loading was anticipated from the opening of the metropolitan lines of railway, and that the directors were making every exertion to provide additional vessels. The new vessel, the *Windsor*, was expected soon to be in service, and the *Prince of Wales*, a new iron vessel, had been placed on the Bangor line. The company's steam schooners were in considerable advance, one of them having already been brought into service. In reference to the Holyhead line, it was stated that the directors would be prepared in due time to give effect to the opening of the railway from that to Chester. The report referred to the relaxation of the harbour dues, and the removing the charge for the Poolbeg light, in the port of Dublin, and paid a well-merited compliment to the Ballast Corporation for the facilities they afforded the company in establishing the case of legal exemption to the whole trade of the port, from the charge for that light.—*Irish Railway Gazette.*

THE GREAT BRITAIN STEAM-SHIP.—This vessel made a trial trip into the Irish Channel on Wednesday last. She has undergone considerable alteration, the principal features of which we stated a few weeks ago. Her masts are now five in number, and fitted with rope rigging, and her propeller is of immense strength, weighing 7 tons, having four vanes, each of great width; her former one had six, but of lesser width. The diameter of the propeller, from tip to tip of the opposite vanes, is the same as before—15 ft. 6 in. The alteration in the style of rigging is expected to effect a great improvement, both as to the speed of the vessel and her general management, whether under steam or canvas.

PROGRESS OF MACHINERY IN FRANCE.—In last week's Journal we gave a list of the number of locomotives ordered in England on account of the different railways now being constructed in France, amounting to 675, which have been contracted for at the rate of 1800*l.* to 2000*l.* sterling, to be delivered within two years. Besides which, the following number of locomotive engines have been ordered to be manufactured immediately by French engineers:—Allcard and Buddicom, 80; Derosne and Cail, 75; Meyer and Co., 70; Gouin, 38; Cave, 35; Creusot, 20; La Ciotal, 25; Hallette, 16; Andre Kœchlin, 12—total, 371. Ten of the engines from Creusot, intended for the railway of Orleans and the centre, are to be of six coupled wheels, and two of Andre Kœchlin, for the railway of the Loire, on the same principle. It must be noticed, that the greater portion of the workmen employed in the French engine factories are English.

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